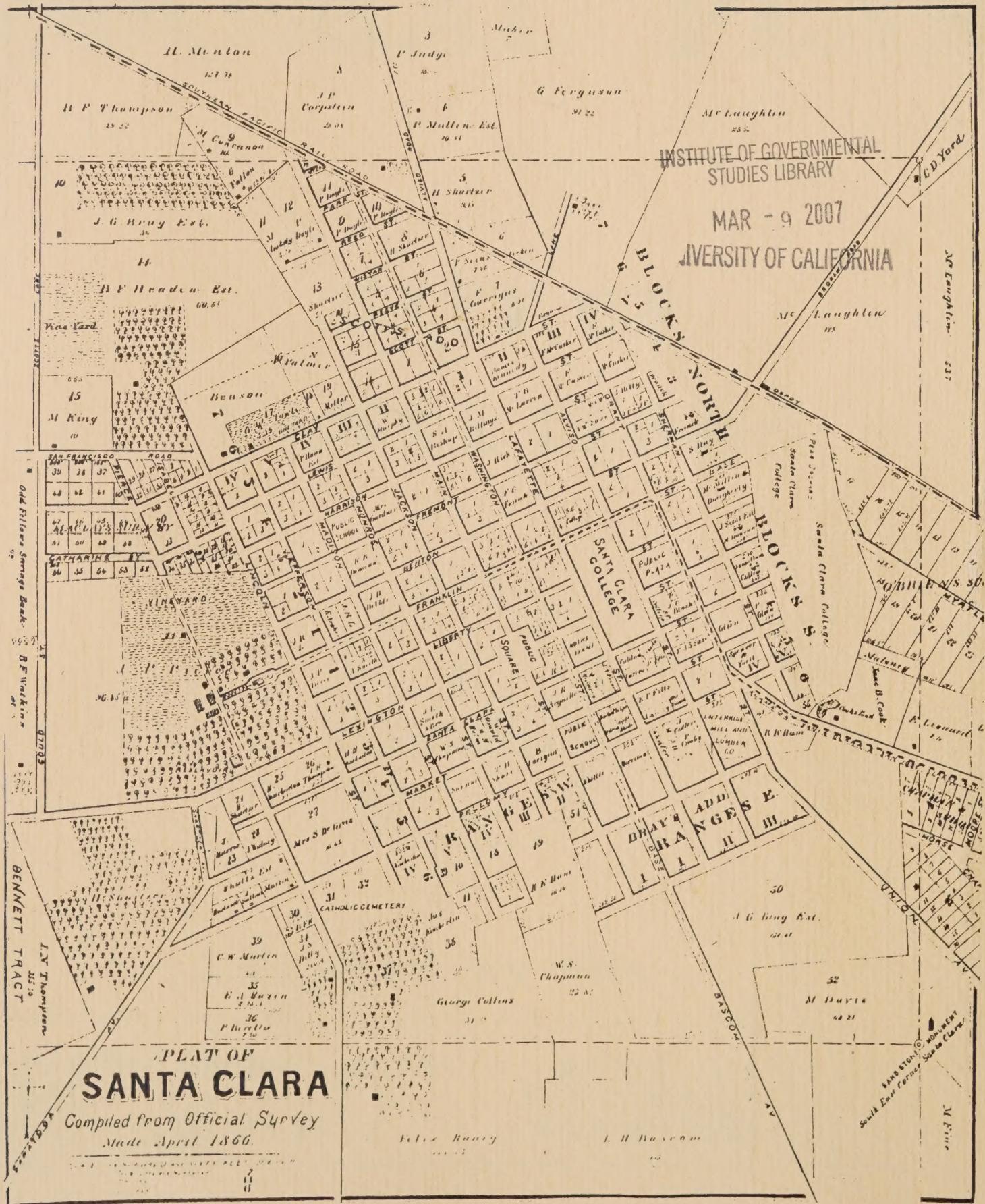


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GENERAL PLAN CITY OF SANTA CLARA



GENERAL PLAN

RECEIVED
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SAN FRANCISCO BAY CONSERVATION
& DEVELOPMENT COMMISSION

CITY OF SANTA CLARA



adopted by the

PLANNING COMMISSION
RESOLUTION NO. 77-8
SEPTEMBER 28, 1977

CITY COUNCIL
RESOLUTION NO. 3921
NOVEMBER 1, 1977



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RESOLUTION NO. 3921

A RESOLUTION ADOPTING AMENDMENT NO. 11 TO GENERAL PLAN
FOR THE CITY OF SANTA CLARA, CALIFORNIA

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA, as follows:

WHEREAS, the Planning Commission of the City of Santa Clara, after careful study and duly noticed public hearing, has adopted Planning Commission Resolution No. 77-8 approving Amendment No. 11 of the General Plan of the City of Santa Clara with a recommendation that said amendment be officially approved and adopted by this Council; and

WHEREAS, this Council has carefully considered the said amendment, as certified to it by the aforesaid Planning Commission; and at a public hearing duly noticed, found that said amendment constitutes suitable, logical and timely amendments to the General Plan of the City of Santa Clara, California to provide for the current needs and for the future development of the City of Santa Clara.

NOW, THEREFORE, BE IT RESOLVED that the amendment to the General Plan of the City of Santa Clara shown and designated on the map on file in the Planning Department entitled, "CITY OF SANTA CLARA, CALIFORNIA, GENERAL PLAN LAND USE ELEMENT, AMENDMENT NO. 11" and dated September 28, 1977 is hereby approved and adopted by the City Council of the City of Santa Clara as the Amendment No. 11 to the General Plan of the City of Santa Clara, in accordance with California State Law and the City of Santa Clara Charter governing the same.

RESOLVED FURTHER that the Mayor and City Clerk of the City of Santa Clara be and they are hereby directed to cause their respective signatures to be endorsed on the aforesaid map entitled, "CITY OF SANTA CLARA, CALIFORNIA, GENERAL PLAN LAND USE ELEMENT, AMENDMENT NO. 11" to show that the amendments shown and designated therein have been adopted by this legislative body.

RESOLVED, FURTHER, that in order that the General Plan shall at all times be current with the needs of the City of Santa Clara, and shall represent the best thinking of the Council, Planning Commission, and boards, commissions and departments of the City, in the light of changing conditions the Planning Commission shall annually review the General Plan and recommend to the Council extensions, changes, or additions to the Plan which the Commission considers necessary. Should the Commission find that no changes are necessary, this finding shall be reported to the Council.

RESOLVED, FURTHER, that the General Plan shall be the guide for the Capital Improvement Program insofar as said Capital Improvement Program affects the physical development of the City. The Planning Commission shall submit an annual report to the Council regarding the Capital Improvement Program, which shall review each project for its conformity to the General Plan; review the program as a whole in order to suggest any improvement in economy or efficiency which might be effected through the combining of various projects; and suggest any needed improvements which do not appear in the program.

RESOLVED, FURTHER, that matters substantially affecting the physical development of the City shall be submitted to the Planning Commission for a report to the City Council as to conformity to the General Plan. Such report shall be made to the Council within thirty (30) days after presentation of the matter to the Planning Commission, provided that said time may be extended by the Council. If said report is not submitted to the Council, within said thirty (30) days period, or any extension thereof, the matter shall be deemed approved by said Planning Commission.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA this 1st day of November 1977, by the following vote:

AYES: COUNCILMEN: Hansen, Kiely, Mahan, Stewart, Street, Texera and Mayor Gissel

NOES: COUNCILMEN: None

ABSENT: COUNCILMEN: None

ATTEST: A. S. BELICK
City Clerk
City of Santa Clara

PLANNING COMMISSION

RESOLUTION NO. 77-8

A RESOLUTION APPROVING GENERAL PLAN AMENDMENT NO. 11

BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF SANTA CLARA,
that:

WHEREAS, declining student enrollment within Santa Clara Unified School
District is creating a surplus of school facilities; and

WHEREAS, this decline is significantly reducing the possibility of
expanding Santa Clara High School; and

WHEREAS, residences immediately northwest of Santa Clara High School are
in good condition and can continue to be used in the future.

NOW, THEREFORE, BE IT RESOLVED that General Plan Amendment No. 11, revising
the Land Use Element to show the area bounded by Monroe, Market, Jackson and
Bellomy Streets as Single Family Detached (as shown on the map labeled
Amendment No. 11 and dated September 28, 1977) be approved by the Planning
Commission and recommended to the City Council for hearing and approval.

PASSED AND ADOPTED this 28th day of September 1977, by the following roll
call vote:

AYES: Commissioners: Clark, Cunha, Deto, Martin, Vieira, Brummal

NOES: Commissioners: None

ABSENT: Commissioners: Valdry

ABSTAIN: Commissioners: None

CITY COUNCIL

William Gissler, Mayor

Gary Hansen

William Kiely Jr.

John Mahan

John Stewart

Auralee Street

Daniel Texera

PLANNING COMMISSION

Wade Brummal, Chairman

Joseph Clark

Edward Cunha

Vernon Deto

John Mahan (1974-1977)

Bertram Martin

Auralee Street (1974-1977)

Felton Valdry

Albert Vieira

CITY STAFF

D. R. Von Raesfeld, City Manager

Olney G. Smith, Director of Planning and Inspection

Frederick J. Carlson, City Planner

Geoffrey Goodfellow

Ann E. Draper

C. R. Larsen

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I. INTRODUCTION

A. PURPOSE OF THE GENERAL PLAN

The purpose of the General Plan is to:

FORMALLY STATE the development policy of the City and

SET FORTH a framework of principles and standards that will

GUIDE future decisions affecting the development of the City
so as to

CREATE a desirable environment for living, working and playing
and

ACCEPTABLY LOCATE those facilities which contribute to the
social, economic and cultural goals of the community.

In 1960, the City first prepared and adopted a comprehensive General Plan for Santa Clara. Since then, the City has increased significantly in both size and complexity. Nine amendments to the Land Use Element have been adopted, reflecting important changes in City policy. The new text presented here serves to clarify emerging goals and priorities.

This General Plan considers the course of Santa Clara's development to 1990. In doing so it confronts such issues as the development of all vacant residential land, the City's status as a major industrial employment center and the future of the Old Quad area. The process of formulating the Plan's policies and programs involved planning staff analysis of available data and past policy, coordination with other agencies and departments, and a series of public hearings before the Planning Commission and the City Council to ensure the direct participation of interested citizens.

This General Plan is a statement of adopted policy and a guide for decisions to be made by the City Council, City Commissions, other governmental agencies and private developers in Santa Clara. Pursuant to the adopting resolution, this Plan is reviewed annually to ensure that it accurately reflects current City policy.

I. Introduction
B. Process of Developing the Plan

IB PROCESS OF DEVELOPING THE PLAN

The quality and success of a General Plan depends on the effectiveness of its development process to include input from as many interested parties as possible. Several consultant studies were made during the 1960's, the findings and recommendations of which have become input for the General Plan. Another important source of this Plan has been the demographic information from the County's 1975 Census and the 1970 U.S. Census. This Plan incorporates advice and ideas from other City departments in order to include their programs and integrate them with each other.

Early in the process, the Planning Commission became involved in study sessions with the staff. Following Commission approval of the preliminary Plan, it was presented to the City Council and the public in a series of public hearings. The reactions and changes suggested during these hearings were used to finalize the Plan for adoption by the City Council. The General Plan is the culmination of a process integrating technical planning and political goals within the City of Santa Clara.

II. Summary of the Plan

II SUMMARY OF THE PLAN

The main thrust of the General Plan is towards maintaining the quality of the City as a place to live and work by limiting the population density. Because of its central location and industrial employment, Santa Clara will be under strong pressure to increase the amount of housing and therefore the density of its residential development. The ultimate population will be held at approximately 100,000. Designated single family areas will be carefully protected from commercial intrusion and higher density residential use.

The second major objective is the Plan's emphasis on continued industrial growth in the City. The benefits of industry in terms of providing jobs and tax base are well documented and play an important role in Santa Clara's healthy economic situation. The General Plan establishes policies and standards that will ensure the proper location of industrial activity in the City and minimize adverse effects such as traffic and noise.

Another theme of the Plan is the provision of increased amenities for residents of Santa Clara. As new residential development diminishes, the primary demands on the City will be for higher quality facilities and services. Public expenditures will be directed towards conservation, recreation, cultural and visual improvements that make Santa Clara a better place to live.

A final issue is the recognition that there are problems and needs facing Santa Clara that cannot be solved by the City alone. Many activities of the present urban society extend beyond local political boundaries or are the result of decisions, in which Santa Clara is substantially affected but would normally have no influence. Already the City is participating in several County and regional organizations and must continue to play an active role in them in order to influence their direction. Failure to do so will not mean more local power but rather loss of control over many decisions that affect local residents.

III. Goals and Policies

III. GOALS

Development

Continue emphasis on improving the social, economic and physical environment of Santa Clara as opposed to simply seeking more intensive land use throughout the City.

Population

Maintain moderate residential densities in the City by preserving established single family areas and controlling the expansion of higher density areas.

Economy

Continue to encourage the development of a sound economic base to support necessary public services within a reasonable tax rate. Encourage a stable employment demand corresponding to the City's labor characteristics. Work towards a combination of population and production which will permit a high standard of living and a wide sharing of life's amenities.

Land Use

Promote the best use of land through protection of desirable existing uses, orderly development and consideration of the City's future needs.

Housing

Encourage the provision of decent housing for all residents regardless of age, income, race, or ethnic background. Maintain the quality and livability of residential areas.

Form

Conserve and improve the environmental quality of the City. Encourage within economic capabilities, needed facilities that contribute to the City's beauty, convenience, amenity, and cultural enrichment.

Function

Establish the position and relationship of the City within the metropolitan area by taking account and advantage of the resources of the larger social and economic region. Cooperate with surrounding jurisdictions in seeking solutions to regional problems.

III. Goals and Policies

POLICIES

Land Use

1. Preserve single family areas where the General Plan indicates their continued use through encouragement of upkeep and investment to maintain residential values.
2. In portions of the Old Quad designated for apartments, new residential construction will be permitted at higher densities when meeting criteria ensuring compatibility with existing uses.
3. Create a multi-purpose activity corridor of high intensity mixed land uses along an east-west axis with the University Redevelopment Project as its center.
4. Concentrate new local-oriented commercial development in existing thoroughfare, community and committed neighborhood commercial areas to enhance their economic vitality and prevent the intrusion of commercial activity into residential areas.
5. Promote visual improvements in commercial uses along El Camino Real and Stevens Creek Boulevard to increase their attractiveness to shoppers and their sales activity.
6. Maintain the urban reserve as a resource to accommodate future land use needs and opportunities.
7. Enhance the distinctive character and quality of Santa Clara throughout the City. Elements of this character include tree-shaded streets, landscaped medians, courtyards and fountains.

Circulation

8. Encourage voluntary staggering of work hours to spread out the morning and afternoon traffic peaks.
9. Support additions to the City road network involving improvements within existing rights-of-way or plan lines, including intersection modifications.
10. Concentrate through traffic on major streets.
11. Encourage construction of missing links in the regional transportation system that would improve traffic flow on freeways and expressways.

III. Goals and Policies

12. Provide and encourage incentives for the use of car and van pools.
13. Public transportation should be developed by the County Transit District in stages based on patronage and available funding. The bus system should be expanded with strong emphasis on commuter service.
14. Support a transit service which includes an extensive collection and distribution system within the industrial area.
15. The establishment of a regional transit connection between Santa Clara County and San Francisco should be a lesser priority than the internal County system.

Housing

16. Ensure the provision of decent housing for all residents regardless of age, income, race or ethnic background.
 - a. Increase the ability of persons and families to meet their housing needs in the housing market.
 - b. Facilitate the provision of safe, sanitary, standard housing to accommodate a fair proportion of persons and families disadvantaged in the housing market.
 - c. Stimulate housing construction consistent with the holding capacity established in the General Plan.
17. Ensure the provision of a variety of individual choices of housing tenure, type and location.
 - a. Facilitate the operation of the housing market so that suppliers and consumers can function more effectively.
18. Establish, maintain and enhance the character, quality and liveability of residential areas.
 - a. Eliminate housing deficiencies and prevent future blight through conservation, construction, rehabilitation and removal.
 - b. Encourage a full range of housing and employment opportunities, open space and adequate transportation facilities throughout all communities in the urban area of the County.

III. Goals and Policies

Public Facilities

19. Continue an innovative energy program to develop new power sources and encourage conservation.
20. Maintain the high level of effluent quality from the San Jose-Santa Clara Water Pollution Control Facility.

Open Space, Recreation and Conservation

21. Conserve and restore the environmental quality of the urban landscape.
 - a. Require landscaping in all private developments, emphasizing the use of trees along street frontages and in parking areas.
 - b. Encourage the use of water features as an aesthetic element in residential and public areas.
 - c. Preserve and highlight historic landmarks that create a unique identity for Santa Clara.
 - d. Continue the emphasis on mission architecture in major public buildings and in private development within the Old Quad.
 - e. Support efforts to improve the air quality of the Santa Clara Valley.
22. Increase the effective use of recreational and aesthetic open space in and around the City.
 - a. Require landscaped open space in residential developments.
 - b. Encourage development of regional open space in the vicinity of Santa Clara.
 - c. Return residual and odd-shaped City-owned lots to productive use.
23. Continue to develop recreation opportunities for residents.
 - a. Provide a well balanced, municipal recreation program that serves all segments of the population.
 - b. Encourage multiple use of land such as schools, parking lots, utility easements and flood control channels.
 - c. Seek construction of appropriate facility for recreation and cultural events.

III. Goals and Policies

24. Make prudent use of open space and recreation revenue sources such as Federal and State grants, private dedications and user fees.

Seismic and Safety

25. Review the City's Building Code regularly and make amendments as necessary to ensure that it uses the best information available on earthquake design standards.
26. Require soil reports to develop specific design requirements on all major projects.
27. Continue to support a water policy of conservation and importation that will ensure an adequate potable water supply and maintain ground water levels.
28. Support flood control improvements that will reduce serious flood hazards in the City. Minor low frequency flooding, particularly in industrial areas, is an acceptable risk and should not be the justification for unnecessary flood control measures.
29. Continue emergency planning with an emphasis on providing contingency City services, including utilities for those that may be affected by a major earthquake or other disaster.

Noise

30. Reduce traffic noise by:
 - a. Support of programs such as carpooling to minimize the use of automobiles.
 - b. Concentration of through traffic on major arterials.
 - c. Construction of noise barriers along freeways and expressways where adjacent to residences.
31. Review fixed guideway transit proposals with concern for potential noise impacts.
32. Support policies for the San Jose Airport that will reduce its noise impact for Santa Clara residents.
33. Following adopted Airport Land Use Commission policy, oppose new major residential development within the noise impact area. Permit appropriate residential development of lots within established residential areas.

III. Goals and Policies

34. Take advantage of improvements that reduce noise when purchasing new City equipment.
35. Use the Existing Noise Contour Map to enforce the State noise insulation requirements for new multi-family housing.
36. Provide design criteria that will reduce the noise impact of industrial uses adjacent to residential areas.

Old Quad Development

37. Enhance the distinctive character of the Old Quad, emphasizing historic preservation, pedestrian orientation, architectural quality and a lively commercial center.
38. Retain predominantly single family areas through preservation and rehabilitation of existing homes. Insure that new construction in these areas is compatible with adjacent single family use.
39. Permit medium density housing in transition areas subject to architectural review for compatibility with adjacent structures.
40. Develop a commercial core of mixed uses oriented around a pedestrian mall. Ground floor space should emphasize retail, specialty, office and service uses with office and residential uses on upper stories.
41. Accommodate through traffic on designated major streets.
42. Improve the liveability of minor residential streets by planting trees and emphasizing their pedestrian function.

ENVIRONMENTAL IMPACT MATRIX

This matrix is intended to be a convenient and easy reference for describing the relationships between the policies of the General Plan and the important environmental and social conditions existing within our community.

The policies are arrayed in columns across the top of the chart and a full description of each can be found in the preceding section and in appropriate elements.

The environmental and social factors are listed by rows on the left hand margin of the chart. A full description of these follows.

The scale varies from +2 to -2 with an open block signifying little or no effect.

- = very positive effects of policy on environmental factors
- = positive effects of policy on environmental factors
- = positive and negative effects of policy
- = negative effects of policy on environmental factors
- = very negative effects of policy on environmental factors

ENVIRONMENTAL AND SOCIAL FACTORS

- DRAINAGE - Runoff, flood control, flood control channels, storm drains and other systems required to handle runoff.
POSITIVE: increased absorption, improved systems (flood control channels, drains, etc.)
NEGATIVE: decreased absorption, inadequate systems, overloaded systems.
- VEGETATION - landscaping, natural vegetation existing in open spaces
POSITIVE: increased landscaping, retention of existing vegetation
NEGATIVE: decreased landscaping, loss of existing vegetation
- WILDLIFE - habitats, migration patterns, and all other life patterns of indigenous wildlife
POSITIVE: protection, preservation, or restoration of the above
NEGATIVE: disruption or dislocation of the above.
- AIR QUALITY - atmospheric pollution from all sources
POSITIVE: improving quality, decreasing pollutant sources presenting alternatives
NEGATIVE: degrading quality, increasing pollutant sources limiting alternatives
- NOISE - level of noise (unwanted sound)
POSITIVE: decrease in noise level, reduction of people exposed
NEGATIVE: increase in noise level, increase of people exposed
- OPEN SPACE - Quantity and quality of public and private open space
POSITIVE: retention of open space, improvements for use, increased access
NEGATIVE: loss of open space through development
- EXISTING LAND USES what the land is currently being used for
POSITIVE: compatible uses
NEGATIVE: incompatible uses
- PUBLIC UTILITIES - utilities - gas, water, electricity, etc.
POSITIVE: present level of demand or decrease in growth rate
NEGATIVE: increase in growth rate, demand for additional facilities

- PUBLIC SERVICES** - police, fire, social services, etc.
POSITIVE: increased services availability to the community
decreased demand load
NEGATIVE: increased demand load
- ENERGY** - All forms of energy use
POSITIVE: decreased demands or maintenance of present
demand levels
NEGATIVE: increased demands
- TRANSPORTATION** - all passenger and freight transportation systems
POSITIVE: improved efficiency, alternative systems, traffic
flow improvements, etc.
NEGATIVE: overloading systems, lack of alternatives, etc.
- PUBLIC FINANCES** - design, implementation, operation, administration and
amortization costs for municipal, county, state and
federal programs
POSITIVE: financially self supporting or profitable
NEGATIVE: subsidized or funded programs
- EMPLOYMENT** - level of employment (number of jobs)
POSITIVE: increase in employment
NEGATIVE: decrease in employment (actual or potential)
- HOUSING QUALITY** - aesthetic and social attributes of housing
POSITIVE: desirable, appealing, well designed, etc.
NEGATIVE: undesirable, poorly designed, etc.
- HOUSING SUPPLY** - number and diversity of dwelling units
POSITIVE: increased number of dwelling units
NEGATIVE: decreased number of dwelling units
- HISTORICAL
ARCHAEOLOGICAL** historical and archaeological sites and structures
POSITIVE: preservation, restoration, retention, etc.
NEGATIVE: destruction and loss of
- POLITICAL
FEASIBILITY** - acceptability potential
POSITIVE: probably well received program
NEGATIVE: probably not a well received program

	PRESERVE SINGLE FAMILY HOUSING IN PARTS OF THE OLD QUAD	MULTI-PURPOSE CORRIDOR	CONCENTRATE COMMERCIAL USES	MAINTAIN URBAN COMMERCIAL	STAGGERED WORK HOURS	WITHIN IMPROVEMENTS ONLY	COMPLETE THRU TRAFFIC	PROMOTE TRANSPORT IN BUS SYSTEM	CAR POOLING	REGIONAL TRANSIT CONNECTION	IN INDUSTRIAL SERVICE AREA	REHABILITATE SUBSIDIZED HOUSING	CONSERVATION OF OLDER	INSPECTION PROGRAM	RELOCATION PROGRAM	ENCOURAGE ASSISTANCE FACILITIES	CONTINUE CULTURAL SEWAGE	HIGH QUALITY REQUIRE TREATMENT	PRIVATE LANDSCAPING IN WATER FEATURES	ENCOURAGE HISTORIC ARCHITECTURE	PROMOTE MISSION OPEN SPACE	PROVIDE REGIONAL RECREATION	BALANCED PROGRAM	MULTI-PURPOSE PROGRAM	MANTAIN GROUND USE OF LAND	FLOOD CONTROL	REDUCE TRAFFIC LEVEL	REDUCE NOISE	REDUCE AIRPORT NOISE	USE INSULATION OF NEW RESIDENTIAL HOUSING TO ADJUST TO NOISE IN OLD QUADS	PEDESTRIAN ORIENTATIONS
DRAINAGE																															
VEGETATION	●	○	○	○		●											○	○	○	○	○	○	○	○	○	○	○	○	○		
WILDLIFE					○												○	○	○	○	○	○	○	○	○	○	○	○			
AIR QUALITY			○		○		○	○	○								○								○		○				
NOISE	●		○			○	○	●	○																○	○	○	○			
OPEN SPACE				○													○		○	○	○	○					○				
EXISTING LAND USES	○	●	●	○	○		●	○									○	○	○	○	○	○	○	○	○	○	○	○			
PUBLIC UTILITIES	●	●																													
PUBLIC SERVICES	●	●																													
ENERGY	●					○		○	○	○	○						○										○	○			
TRANSPORT	●	○	●	○		○	○	○	○	○	○																				
PUBLIC FINANCE			○	○			●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●				
EMPLOYMENT		○	○														○	○													
HOUSING SUPPLY	●	○															○														
HOUSING QUALITY	○	●		○													○	○	○	○	○	○	○	○	○	○	○	○			
HISTORICAL ARCHEOLOGY	○	●															○	○													
POLITICAL FEASIBILITY			○	●				●	●							●	○	○	●	○	○	○	●	○	○	○	○	○			

IV. Background of the City

A. History

IVA HISTORY

Fertile soil, level land, abundant water, a temperate climate and a central location within the San Francisco Bay region have combined to form a pleasant and productive living environment in the City of Santa Clara throughout its long history.

The first written record of the area is from 1769 when the scouts of Juan Gaspar de Portola's Spanish expedition reported grassy plains spotted with oak trees and numerous Indian villages. On January 12, 1777, Padre de la Pena offered the first Mass of the Mission Santa Clara under a shelter of tree branches. The Mission prospered and was rebuilt in 1779, 1784, 1819, and finally in 1825 where it stands today on the campus of the University of Santa Clara. The Spaniards found the valley floor ideal for vast herds of cattle and sheep which were raised primarily for hides and tallow. During the early nineteenth century, the agricultural emphasis shifted from cattle to grain production.

Following California's entry into the Union in 1850, Santa Clara began to lay the foundation for its transition from a rural town to a city. In 1851, the Jesuits founded the University of Santa Clara with \$150, a faculty of two, and 16 students. Soon after, in 1852, Santa Clara was incorporated as a charter city under the provisions of the State constitution. The City officially plotted a street system in 1866 to accommodate anticipated growth. This layout still exists in the central business district.

Around 1870, Santa Clara began to take on regional and even national significance. The two developments most responsible for this were (1) the prosperity and academic achievements of the University and (2) the transition to an orchard economy. By 1940, Santa Clara supported a population of 6,700 and was known as the prune capital of the world.

During World II, industry began to locate in the City and develop for the first time an economy not subject to seasonal employment. It was the start of a tremendous in-migration of population and industry to Santa Clara. To deal with the accompanying problems of urban growth, a planning commission was established in 1949 and two years later the City changed to the city manager form of government. To ensure high quality construction and sound engineering, zoning, subdivision and building regulations were enacted. The Engineering and Utilities Departments were expanded and full time Planning and Building Departments were established.

IV. Background of the City
A. History

The full effect of the massive urbanization generated by the growth of the Bay region and local employment opportunities was felt in the decade of the 1950's. Led by industry, all other sectors of the economy expanded rapidly, initiating a growth cycle that has yet to culminate. Between 1950 and 1960, the population increased by 403%, to 58,900. In 1960, a General Plan was adopted to guide the City's continuing growth.

Available prime industrial land, a well managed city and a supply of educated and highly skilled labor led to rapid industrial growth and development of more sophisticated electronics research and manufacturing establishments in the latter part of the 60's. In 1970, new industrial construction reached \$24 million, the highest of any city in the state for that year. The levels in 1973 and 1974 reached \$28 million. The first four months of 1976 exceeded the 1975 total, indicating a continuation of rapid industrial growth.

The development of Marriott's Great America Park is having an important impact on Santa Clara, both on the revenues received by the City and as a stimulant to additional commercial services. The park will attract over two million visitors a year, many of which are tourists requiring lodging and other services. The park is also creating a recreation orientation for the area which may attract similar facilities.

The vitality of the rest of Santa Clara has matched that of its economy. The City has built a civic center, library and extensive central park within the last decade. As part of Santa Clara's strong recreation program, the Swim Club has won numerous team and individual honors in both national and international competition. Culturally, the community supports several museums, theatre groups, and many special events.

Although the phenomenal growth of the last twenty years has tapered off, the effects of it will continue to influence the City's development. Fortunately, most of Santa Clara's heritage is a favorable one, giving the City an excellent social, economic and cultural basis for the future.

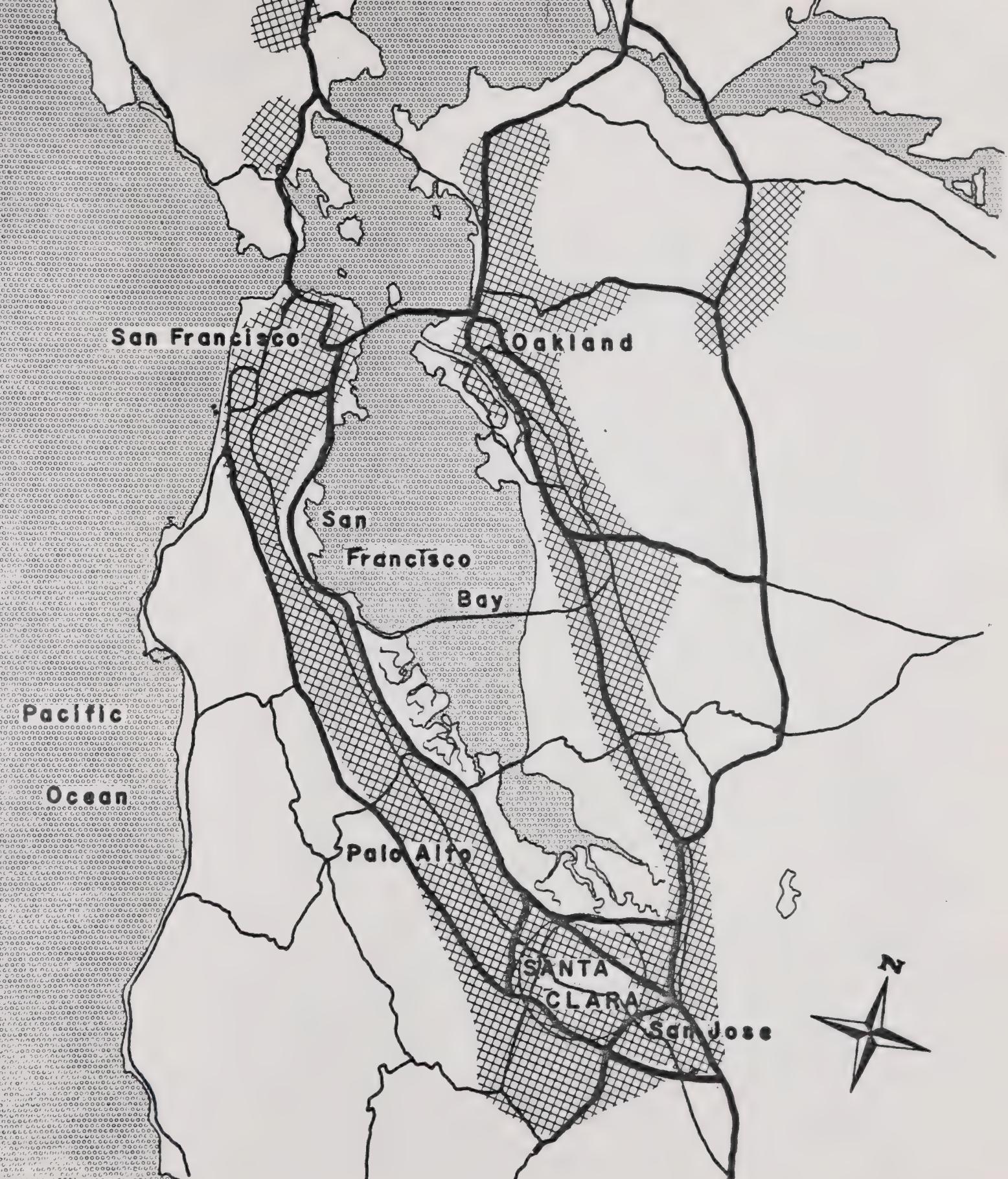
IV. Background of the City
B. Geographical Setting

IVB GEOGRAPHICAL SETTING

The Santa Clara Valley is located at the southern end of San Francisco Bay. It is bounded by the Santa Cruz Mountains on the west and the Diablo Mountain range on the east. The valley between is characterized by flat, agriculturally rich and buildable expanses ideal for urbanization, as witnessed by its history. Streams in the valley are abundant and, while providing adequate drainage, in the past have been a source of flooding. In the northern area, where Santa Clara is located, the problem has been amplified by the proximity of the Bay and the low elevation of the land. However, flood control devices are being developed to contain the 100-year flood level. The northern area is also characterized by underlying alluvial sediments and bay mud. Because these soils are less stable under certain seismic stresses, development in this area must utilize structural standards to provide the necessary safety margins.

The climate of the area is excellent and described as Mediterranean. The temperatures are mild, monthly averages range from 46° to 71°, with the maximum exceeding 90° only 16 days per year and temperatures below freezing five times per year. Rain is concentrated in the winter months, leaving an average of 293 days a year with sunshine. This temperate climate allows a variety of outdoor cultural and economic activities as well as creating an ideal living environment. The main climatic problem is the frequent presence of a temperature inversion over the valley that traps air pollution below.

The political boundaries of the City are San Jose on the north, east and south, while Sunnyvale and Cupertino border on the west. Santa Clara's ultimate boundaries encompass about 19 square miles or approximately 12,000 acres of land.



REGIONAL LOCATION

IV. Background
C. Regional Setting

IVC REGIONAL SETTING

The central location of the City of Santa Clara within the San Francisco Bay Area makes it a focal point for urbanization within the region. Santa Clara County, the metropolitan area which includes the City of Santa Clara, is one of the most vigorous in the State. It has the largest population of any county in northern California and is the fastest growing one in the Bay Area.

In 1975, the County population was 1,190,000, an 11% increase over the 1970 population of 1,072,400. The average household income in 1974 was \$17,209, the highest in all California metropolitan areas. New industrial development and construction indicate a continuing economic growth of the area. In 1975, the County had 27% of all new construction in the Bay Area and 30% of all new dwelling units built.

Contrasting the growth of San Jose and the County with the population losses of San Francisco and Oakland shows the southerly shift in focus within the Bay Area. Many indicators now point to the San Jose Metropolitan Area's development as an equal economic force with the older regional centers. In 1973, 41% of all manufacturing employees in the Bay Area worked in Santa Clara County.

Because of the high mobility of the population and interdependence of the economy, the future of the City cannot be separated from that of the County and the larger Bay region. Many problems that the City faces, such as air and water quality, flooding and traffic congestion cannot be solved by the City's actions alone.

There is no doubt that Santa Clara will plan an important role in, and benefit from, the continued development of the San Francisco Bay region. As part of this process, the City must be concerned with regional facilities and programs. The General Plan of the City of Santa Clara recognizes this and encourages City support for necessary regional efforts. Since the City cannot escape being influenced by the policies of surrounding jurisdictions, the City's interest is best served by taking an active role in regional organizations. The main areas of regional concern are a long term water supply, flood control, air and water pollution control, waste disposal, transportation, regional cultural facilities and conservation of open space.

IV. Assessment of Present and Future Conditions
D. Population

IVD POPULATION

Within the last twenty years, the population of the City of Santa Clara has increased approximately 700% from a population of 11,702 in 1950 to its 1975 estimated population of 82,978. Santa Clara now ranks as the third largest city in Santa Clara County after San Jose (551,224) and Sunnyvale (102,154).

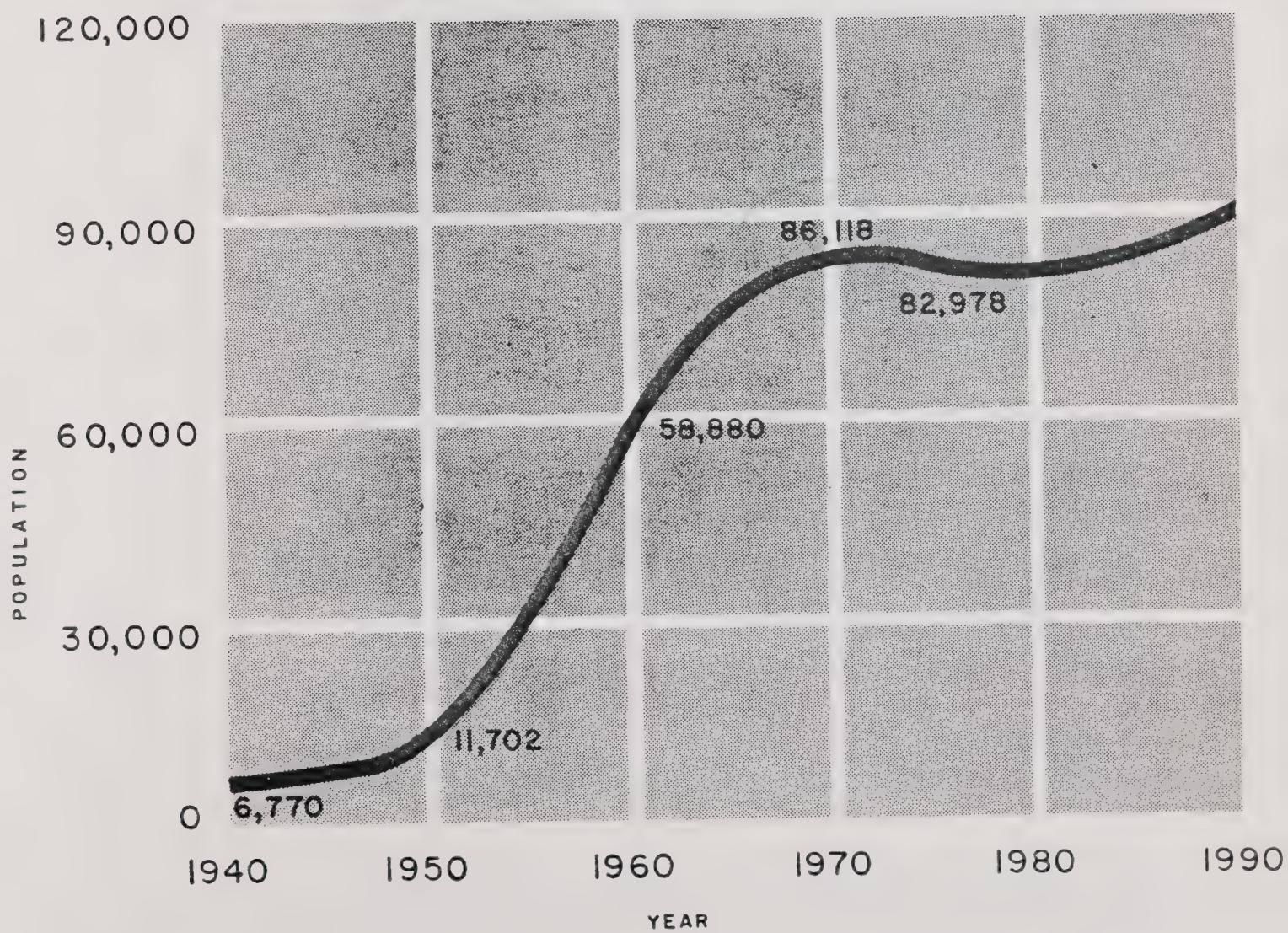
A large share of the City's population growth occurred within the decade from 1950 to 1960 when the population increased by nearly 50,000, a growth of 400%, which accounts for almost three-fifths of the present population. Since 1960, population growth has tapered off; 40% between 1960 and 1966, 6% between 1966 and 1970, and 4% between 1970 and 1975.

As phenomenal as Santa Clara's growth has been, it was not an isolated or unique development. It has been part of the overall growth of the San Francisco Bay area and San Jose metropolitan area in particular. Between 1950 and 1975, the population of Santa Clara County expanded from 300,000 to 1,190,000. The City of Santa Clara's rapid growth has been paralleled by that of Palo Alto, Sunnyvale, and Mt. View.

The resulting pattern is clear--the growth of the last twenty years has been an infilling process between the older urban centers of San Jose and Palo Alto. The space requirements of this growing population have caused the development of much of the open land between these cities, including Santa Clara. The remaining undeveloped land has increased significantly in price and is often less suitable for residential use. These factors have caused the major thrust of population growth to shift to areas further from the employment centers and lower in price. New growth in Santa Clara will occur at a much slower rate than in the past and will be a different type--medium density infilling rather than single family tract development which was the predominant housing construction prior to 1966. The City's 1975 vacancy factor was 3.9% of available housing, largely in rental units. This represents normal turnover, and full occupancy.

Population projections for the year 1990 indicate that growth in the number of households will be largely offset by smaller household size. Because of diminishing available land, most of this new growth will be in the next decade. The ultimate holding capacity of this plan is estimated at 100,000--a point at which sound residential construction would have to be removed to make room for additional residents.

CITY OF SANTA CLARA POPULATION GROWTH



Source: City Santa Clara Planning Div.

IV. Assessment of Present and Future Conditions
D. Population

Although the lower birth rates and California's reduced attractiveness for migrants has slowed the growth of the San Jose metropolitan area, it is still expected to reach a population of 1,500,000 by 1990 or soon after. The City will certainly feel the consequences of this growth around it in increased traffic, continued loss of open space and environmental quality and growing demand for water.

The effects of rapid growth on the characteristics of the City's population have been very noticeable. At the same time, there have been national trends towards a younger population and strong impacts from the post war baby boom. The median age in Santa Clara dropped from 28.2 in 1950 to 25.1 in 1970. The percentage of residents over 65 also has dropped from 6.8% in 1950 to 5% in 1970. This trend has also produced an increase in household size from 3.3 persons in 1950 to 3.7 in 1960. More recently, the percentage of people under 18 has decreased from 39.6% in 1960 to 37% in 1970, indicating a gradual maturing of the new families. By 1970 enough children had grown up (reinforced by the national trend towards smaller families) to lower the average size to 3.18 persons per household. Another factor was the percentage of one-person households more than doubling between 1960 and 1970 because of the increase in apartments. By 1975, average size had decreased to 2.7 persons per household.

In 1970, the median income of households in the City was \$10,915; high in comparison to national figures and just below average in Santa Clara County. Of the households reporting in the City, 10.5% had incomes of less than \$3,000 and 55.5% had incomes over \$10,000. In 1960, the figures were 7.2% below \$3,000 and 22% above \$10,000. Comparing these two years indicates substantial improvement in the higher income brackets but none at the poverty levels. In general the preponderance of families in Santa Clara fall in the middle income range with fewer wealthy or poor families than the County averages.

The identified racial and ethnic minorities of the City in 1975 were Mexican/Spanish descent, 9.7%; Black, 1.2%; Asian, 3.3%; American Indian, 0.4%; and others, 3.9%.

Educationally, the City has made large gains since 1950 when the population was basically agriculturally employed. Both the national trend of staying in school longer and the influx of skilled and technical workers attracted to the expanding

IV. Assessment of Present and Future Conditions
D. Population

economy have increased the population's education. In 1970, 17% of the residents over 25 had no high school education and 29% had some college experience. The median number of school years completed was 12.4 in 1970, slightly below the County-wide figure.

In the future, the main influence on the composition of the City will be the stabilization of the population, the reduced role of in-migration and the continuing influence of national trends. No drastic changes are expected but, in general, the household size may diminish further, average age and education will probably rise slightly and income is expected to maintain its steady growth.

IVE. ECONOMY

The present economy of Santa Clara is built upon a manufacturing and commercial base. The most remarkable characteristic of the economy has been its recent rapid development. In contrast to the City's population growth, its industrial and commercial development lagged during the 1950's and early 60's. Since 1965, however, both the industrial and commercial development within the City have surpassed average levels of growth. As a result, Santa Clara has been able to reduce the tax rate in 1976 to 57% of the 1966 rate (\$152. to \$0.87).

1. INDUSTRY

The accompanying graph of annual industrial permit valuation illustrates the tremendous increase in plant construction and expansion. The average for 1968-70 was \$15 million a year compared to under \$2 million for each of the preceding three years. Following a recession slump, the 1973-75 average was \$20 million per year.

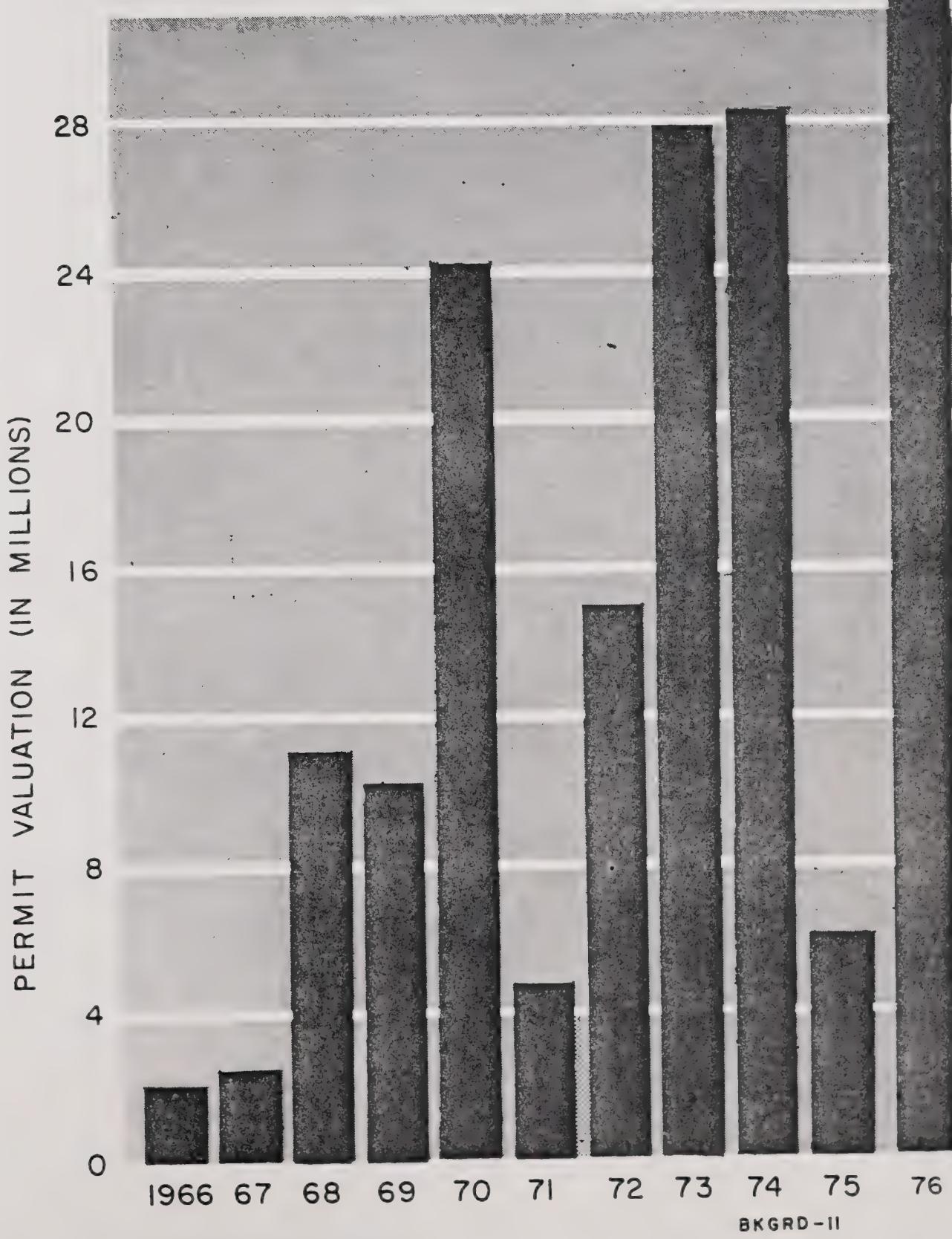
The industrial sector of Santa Clara's economy is dominated by the electronics industry both in number of firms and employment. A survey of industrial firms in the City taken in 1971 found over half of the City's industrial employment concentrated in the electronics field and indicated that major growth would continue in this industry. (The City's top four employers are all electronics firms and, together, employ over 13,000 people.) The remainder of Santa Clara's employment is more evenly distributed, including non-electrical machinery, food processing, fabricated metals, stone, glass and clay, and distribution firms. Less than 15% of the City's employment was reported as directly dependent on government contracts.

Valuation of industrial property constituted 28% of the City total in 1973. Since 1970, industrial construction has averaged one-third of the total annual construction. A private study of industrial development since 1970 found that Santa Clara had the largest amount of construction of any city in the County and that the occupancy rate (77%) was also the highest.

During the next ten years, industrial growth will be the dynamic aspect of Santa Clara's economy. The electronics industry will be the driving force of this growth and will spawn development in associated industries as well. Although individual years will vary, the average annual growth will exceed 100 acres and construction valuation should be over \$20 million.

CITY OF SANTA CLARA INDUSTRIAL PERMIT VALUATION

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IV. Background
E. Economy

CITY OF SANTA CLARA
PER CAPITA RETAIL SALES

Retail Stores	1974 Per Capita City	Retail Sales County	City Compared to 1974	County 1970
Apparel	\$ 89.	\$ 116	77%	68%
General Merchandise	515	413	125%	123%
Drug Stores	99	50	198%	167%
Food Stores	208	192	108%	87%
Packaged Liquors	84	67	125%	113%
Eating and Drinking	286	240	119%	112%
Home Furnishing	341	123	277%	243%
Building Materials	179	165	108%	94%
Auto and Supplies	556	404	138%	138%
Service Stations	200	230	87%	91%
Other Retail	531	215	247%	143%
TOTAL	\$ 3090	\$ 2208	140%	125%

Populations used:
 City - 83,500
 County - 1,178,900

Source: "Trade Outlets and Taxable Sales," State Board of Equalization

2. RETAIL TRADE

Taxable retail sales had more growth than in any city in the metropolitan area, 240% between 1960 and 1970, or nearly double the County average.

Due to this rapid growth in the last decade, retail trade is now in a strong position. Using per capita taxable retail sales as an indicator, in 1974, the City had 40% more sales than the County. The City has substantially above average sales in home furnishings, automobile dealers and supplies, and general merchandise. It is lowest in apparel and service stations. Assessed valuation of commercial property in 1973 constituted 11% of the City's total. The presence of several regional shopping centers near the City means that it is unlikely that retail trade will increase much beyond what can be supported by local population growth. An exception may be tourist services which will benefit from the attraction of Marriott's Great America Park.

3. EMPLOYMENT

Employment in Santa Clara is heavily weighted towards manufacturing. Between 1960 and 1965, manufacturing employment dropped from 45% to 35% of the total while service employment increased from 14% to 21%. Because of industrial development in the City since 1965, however, the 1975 manufacturing percentage had risen to over 50%. The new industrial growth also represents a change in type. The older firms were heavy industry or agriculturally oriented; Monsanto, Fiberglas, PM Mill, and Duffy-Mott; while the new ones are research and development types; National Semiconductor, Hewlett-Packard, American Microsystems. This transition has had effects on the type of employees and therefore the type of population in the City. The new plants hire more technical and clerical workers and fewer unskilled laborers. The influx of better educated and skilled workers has created a valuable labor supply which is now one of the City's (and region's) main attractions for industry.

In 1965, jobs and workers in the City were in close balance, 27,581 workers and 25,200 jobs (excluding agricultural contract and construction, which add at least another 1500 jobs). By 1975, continued employment growth had created an excess of local jobs over local workers. For instance, the top four manufacturing employers alone had more employees in 1971 than the entire manufacturing sector of the City in 1965.

Unfortunately, this does not imply that most residents work in the City. The County Transportation Study of 1965 found heavy commuting patterns in the Santa Clara planning area. There were 50,510 work trips into the area from other zones and 32,120 work trips from this area to other zones. Only 5,700 work trips began and ended in this planning area, meaning very few people live and work in the City. Also job requirements and resident's qualifications do not always match.

In Santa Clara there is a lack of jobs for unskilled residents and a resident shortage of upper management and professionals. The decline of agricultural and laborer jobs and the lack of prestigious housing are partial explanations for the respective mismatches.

Santa Clara's economic base has continued to improve during the last few years despite the recent recessions. Although the heavy dominance of the electronics industry at both the City and County levels produces some instability, the diversity within the field and decreasing reliance on direct governmental contracts tends to flatten the employment fluctuations. The continuing growth in electronics manufacture is a self-perpetuating process. The labor supply developed by the early Stanford firms and Lockheed has provided the impetus and attraction for new and expanding firms requiring these skills to locate in this area. The existing labor supply has joined central location and transportation access as Santa Clara's prime attractions for industry.

Employment densities of industry developed since 1970 have been unexpectedly high. Parking spaces are being constructed at ratios indicating approximately 50 employees per acre. If future industrial growth continues at this level, employment in the industrial area could reach 75,000 by 1990. Total employment at that time would exceed 100,000, double the 1975 figure.

CITY OF SANTA CLARA EMPLOYMENT

	1960		1965		1971		1975	
	#	%	#	%	#	%	#	%
Manufacturing	9200	45	8700	35	17,400	45	26,600	53
Retail Trade	4100	20	5400	21	6400	17	8000	16
Wholesale Trade	700	3	1200	5			2200	4
Services	2900	14	5400	21	7000	19	6100	12
Finances	600	3	800	3	1000	3	800	2
Transportation, Communications, Utilities & Construction *	1000	5	1000	4	3000	8	3400	7
Government	2100	10	2400	10	3000	8	2900	6
TOTALS	20,600	100	25,200	100	37,000	100	50,000	100

*1960 and 1965 do not include construction

Source: INFO #312 (1960 and 1965), County of Santa Clara Planning

City of Santa Clara Survey (1971)

County Employment Survey (1975), County of Santa Clara and City of San Jose

IV. Background Analysis

IVF ANALYSIS

From the preceding sections, an overall analysis can be made of Santa Clara's present situation. The growth pattern is indication that the City has entered a new stage of development characterized by little population growth, a changing type of housing, industrial and service expansion, and the beginnings of new construction in the older areas.

Because of rising housing costs and decreasing available land, residential construction in the City will be in higher density townhouses and apartments. This trend, combined with the national tendency towards smaller families will continue the decline in average household size and the increase in young single residents. Since few new single family houses will be built, it is essential that the existing ones be maintained to preserve the moderate density environment, dwelling units for large families, a stable population, and concerned homeowner voting majority.

The recent industrial growth in Santa Clara is not unexpected. The City has some of the best industrial sites in the metropolitan area. The land itself is flat and dry; access to freeways, railroads and an airport is excellent; the location is central in the Bay area and there is a large supply of skilled labor. The land north of the Bayshore Freeway is the last large undeveloped area in the City. The combination of market forces and the advantages of jobs and tax base development have resulted in a long standing Council decision to encourage development. This development has had positive impacts on the City's employment, economy and tax base. Traffic generated by the employees in and around Santa Clara also has been increasing. Transportation is one of the major issues for Santa Clara and the County during the next decade.

The Old Quad area presents both problems and opportunities. The problems include deteriorating single family houses, a lagging redevelopment project and commercial establishments that are not achieving their full potential. The opportunities are for new housing, the preservation of Victorian houses and historic landmarks, and the creation of a neighborhood with convenient service and a pedestrian orientation.

Increasing prosperity and a general recognition of the value and effect of the environment have created a mandate for amenity and aesthetic quality in the City. Through its zoning ordinance and architectural control, the City has emphasized its commitment to more attractive development and strengthening the Mission identity.

IV. Background
F: Analysis

The growth of Santa Clara County has resulted in the interlocking of local jurisdictions, both physically and operationally. There are numerous problems that this City, working alone, cannot overcome, including disposal of toxic industrial wastes, low cost housing, increased transportation without pollution, future water supply, and airport noise. Organizations that enable Santa Clara and the surrounding cities to work cooperatively must be supported in a manner that will best serve the interests of the citizens of Santa Clara.

LAND USE

LOW DENSITY RESIDENTIAL

APARTMENT RESIDENTIAL

COMMERCIAL

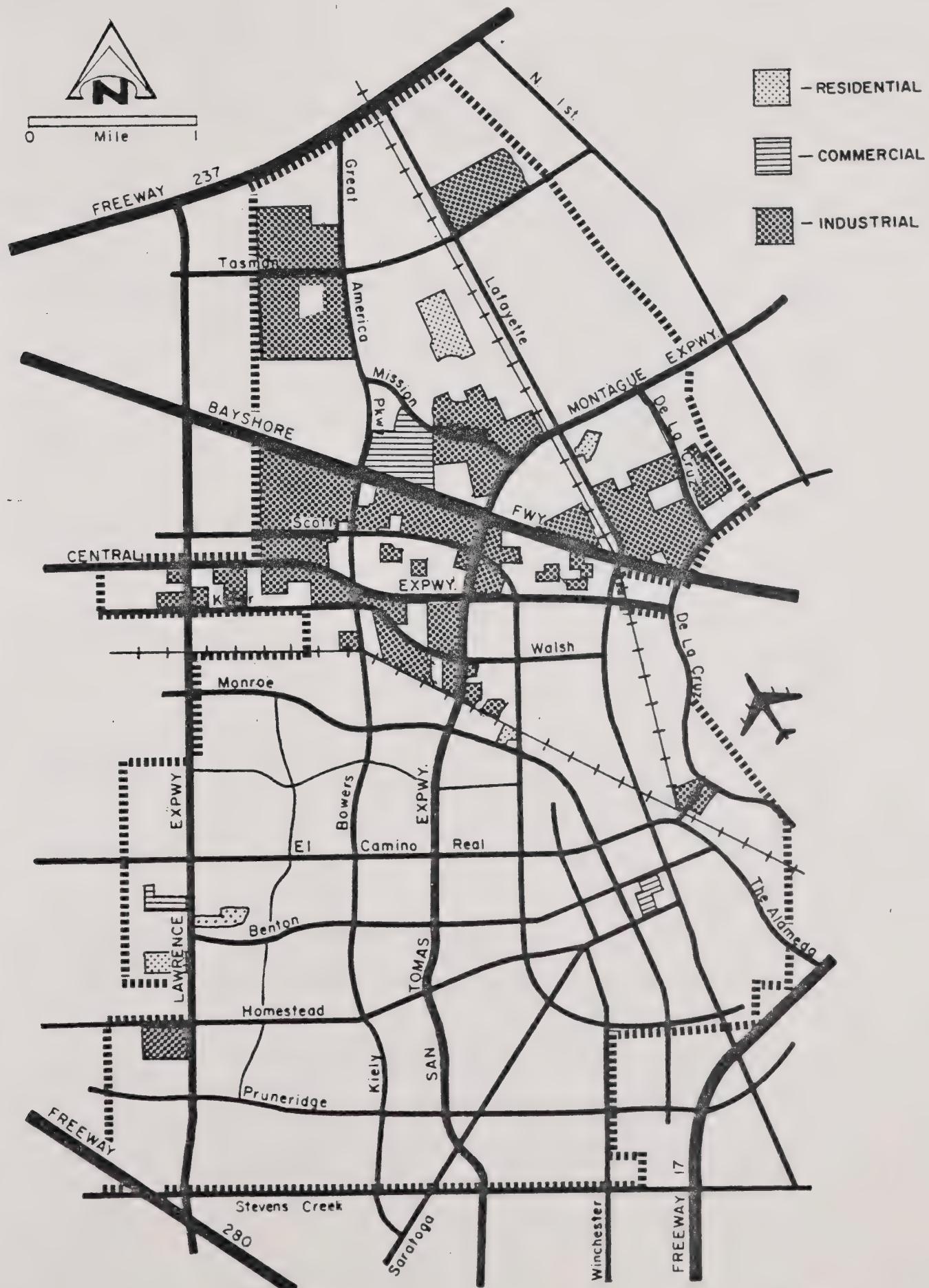
INDUSTRIAL

PUBLIC FACILITIES

OPEN SPACE



UNDEVELOPED LAND - 1976



V. Elements of the Plan
 A. Land Use

CITY OF SANTA CLARA
 LAND USE ACREAGES

Land Use Category	General Plan Map	1976 Land Use Status	
Residential	4600		
Single Family	3335	Single Family Undeveloped	3315 '20
Townhouse	185	Planned Development Undeveloped	127 58
Garden Apartments	1045	Multiple Single Family Undeveloped	900 115 30
Medium Density	20	Multiple Single Family	5 15
High Density	15	Multiple Single Family	7 8
Commercial	1190		
Community	210	Shopping Center Undeveloped	200 10
Thoroughfare	695	Strip Commercial Marriott Undeveloped Marriott	365 265 65
Neighborhood	120	Convenience	120
Office	115	Office Commercial	100 15
Multipurpose	50	Mixed Commercial/ Residential Undeveloped	38 12

V. Elements of the Plan
A. Land Use

CITY OF SANTA CLARA
LAND USE ACREAGES

(Continued)

<u>Land Use Category</u>	<u>General Plan Map</u>	<u>1976 Land Use Status</u>	
Industrial	3385		
Industrial Park	1350	Industrial Park	389
		Agriculture	102
		Undeveloped	859
Light	975	Light Industrial	552
		Mobile Home Park	15
		Undeveloped	408
Heavy	1060	Heavy Industrial	935
		Residential	5
		Undeveloped	120
Public	2325		
Institutional	770	Municipal	300
		Hospital	380
		Cemeteries	90
Educational	765	Educational	750
		Industrial	15
Parks and Recreation	300	Parks & Recreation	292
		Single Family	8
Urban Reserve	490	Sanitary Landfill	400
		Agriculture	50
		Undeveloped	40
TOTAL	11,500 ACRES		11,500 ACRES

V. Elements of the Plan
A. Land Use

VA LAND USE

Because the ultimate boundaries of Santa Clara have been determined and much of the City is developed, land uses within the City have become well established and future patterns can be anticipated. Over 80% of Santa Clara's jurisdiction and 98% of the residential land has already been developed. Based on recent trends, the vacant land is expected to be largely developed by 1990. Construction in the City, however, will not end at that point. Many industrial plants have included land for expansion in their current sites. A significant reinvestment in developed industrial parcels will continue well beyond the time frame of this General Plan.

The City has the authority and the techniques to ensure that future development be in the best interests of the citizens of Santa Clara. The Land Use Element and map represent current plans for growth through 1990 that can maximize realization of the General Plan goals.

Santa Clara's land use is divided broadly by the Southern Pacific Railroad. South of the railroad is residential and commercial, north is a mixture of industrial, public land, and residential. The residential area is almost all developed with single family houses and garden apartments. Two major commercial strips traverse the City and small neighborhood shops are distributed throughout the residential area.

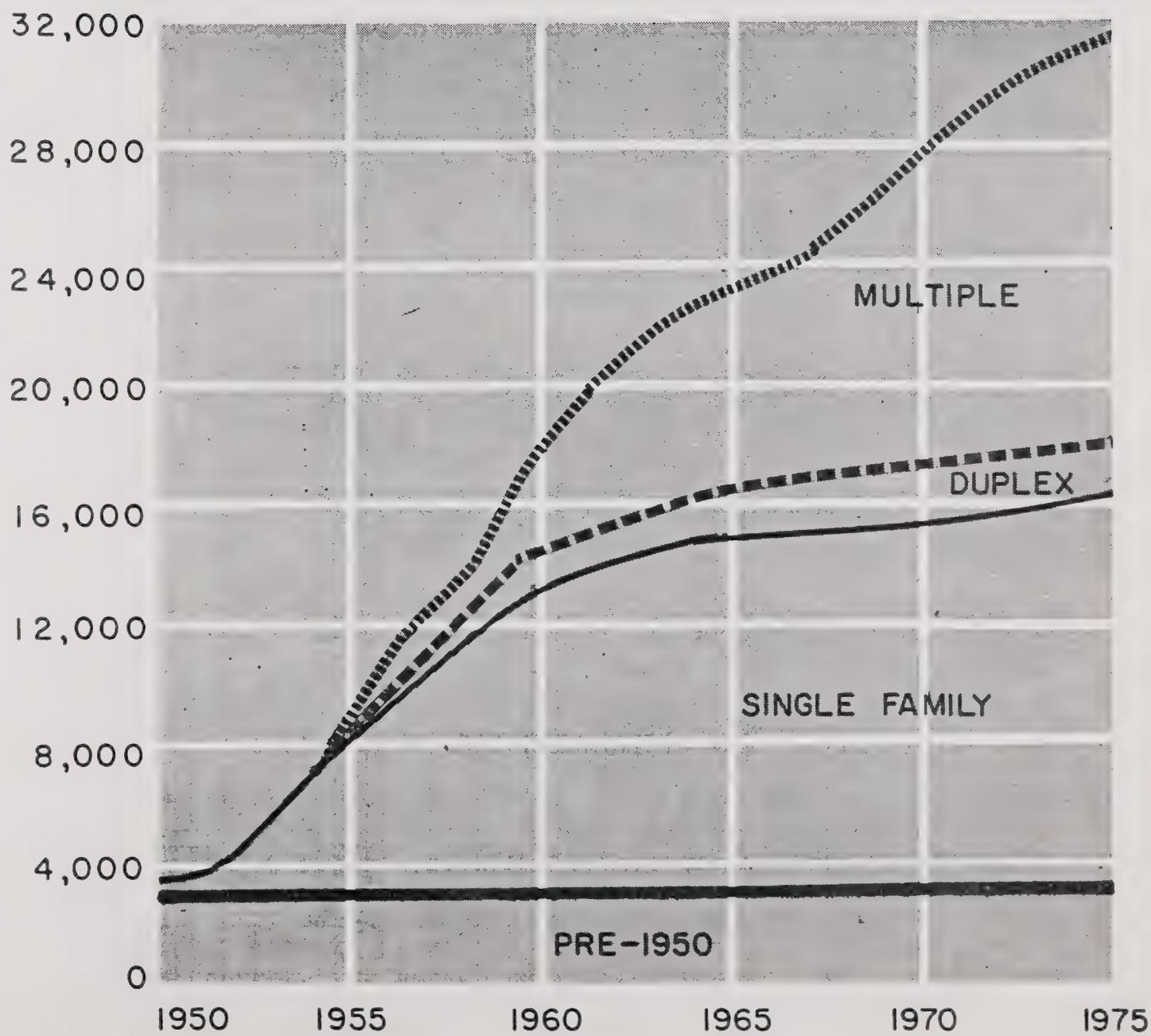
The industrial area has developed with larger parcels and buildings and more vacant land. Most of the industrial buildings are one-story, tilt-up concrete structures. This pattern is interrupted by several major office buildings, the Marriott Theme Park and the Marriott Hotel, a high rise structure.

I. RESIDENTIAL

In 1975, Santa Clara had 31,973 dwelling units occupying one-third of the City's land area. Most of this housing is located south of the Southern Pacific Railroad. Single-family units comprise 50% of the present housing and take up 80% of the residential land.

The composition of the new units constructed each year has changed considerably since the 1950's. Prior to 1959, single family houses consistently made up 60% or more of the new additions. Since 1966, the situation has reversed; multi-family units now comprise the majority of new housing built. In 1969 and 1970, they reached 90% of the new housing constructed.

CITY OF SANTA CLARA CUMULATIVE HOUSING STARTS



V. Elements of the Plan
A. Land Use

Increases in housing will occur largely in higher density units, primarily to achieve lower unit costs and maximize use of available land. For this reason, it will become increasingly important to preserve the quality of the existing single family units and to maintain a satisfactory range of housing types.

The land use areas committed to Single Family Detached range in density from four to six dwelling units per gross acre. Building coverage has a maximum of 40% of the lot and averages 35%.

Townhouse designation permits densities of six to ten units per net acre, typically in single family attached or duplex developments. In these developments, advantages of ownership are made available to a wider range of buyers, many of whom cannot afford or are not interested in detached housing on larger lots.

Most multiple family units are built under Garden Apartment restrictions, which limit density to under 25 units per net acre and building coverage to 35% of the lot. Buildings cannot exceed two stories in height and 35% of the lot must be landscaped.

Medium Density areas permit up to 36 dwelling units per net acre in four-story buildings. Coverage is limited to 45% with 35% landscaping required. Medium density apartments are limited to the Old Quad.

High Density apartments are planned within and adjacent to the multi-purpose core area. Structures can be high rise towers up to 15 stories. Building coverage can be 65% of the lot.

The major area of anticipated change in residential land use is the Old Quad. The Old Quad is the site of pre-1950 Santa Clara and has a high proportion of the oldest structures in the City. A 1974 survey found 20% of the residences to be in less than standard condition.

The Old Quad has a significantly different character from newer tract neighborhoods. Most of the historical and architectural landmarks of Santa Clara are in the Old Quad. Preservation of this character provides an important link to the City's past and an alternative residential environment to the more recent suburbs.

V. Elements of the Plan
A. Land Use

5

Areas most suitable for preservation have been identified and should be protected.

Other parts of the Old Quad, however, are planned for conversion to higher densities. A major obstacle to replacement by new construction is the small size of existing parcels. As open land is built up in and around the City, it will become increasingly feasible for developers to assemble adjacent lots and build apartments. Consolidation of small parcels is encouraged in transition areas to allow a wider variety and higher quality of building design.

Naturally, a land use transition like this occurs over many years and must be closely monitored and directed by the City. Most important, the conversion must result in new development that harmonizes with adjacent development and makes a positive contribution to Santa Clara's livability.

2. COMMERCIAL

The Land Use Map identifies five different types of commercial activity within the City. The various levels have distinct characteristics and consequences for the surrounding areas.

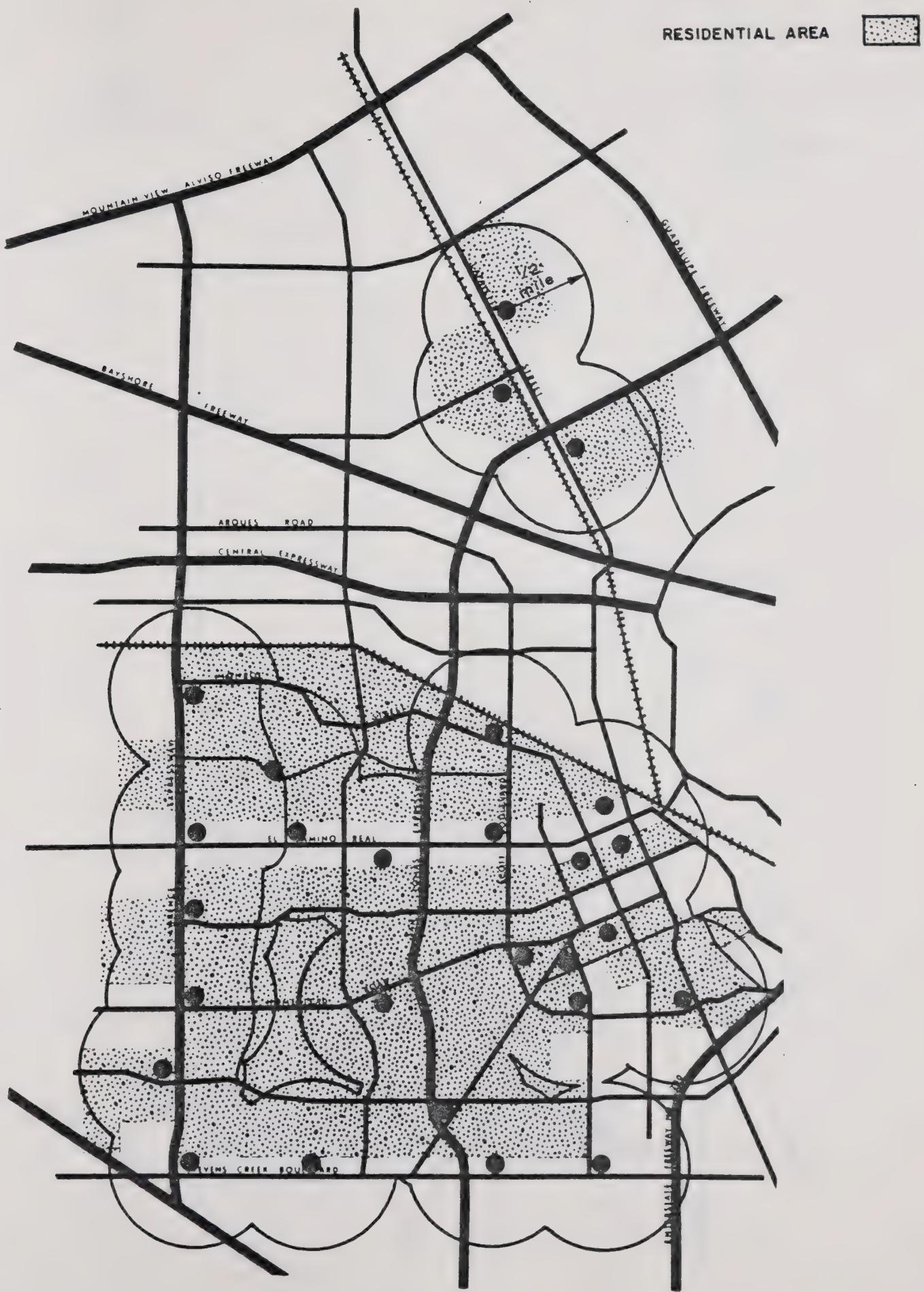
Convenience commercial is a limited commercial area with a pedestrian orientation and serving the immediately adjacent residential neighborhood. Businesses which depend on heavy automobile usage or create noise are excluded from convenience shopping areas because of the surrounding residential use. Convenience commercial activity can also be found within larger shopping districts but still maintain their neighborhood function, providing groceries, launderettes, barber shops, and similar services. Convenience shopping is found within one-half mile of most residences in the City. Convenience commercial areas are generally one-story in height with 30% building coverage and street frontage landscaping.

Community and regional commercial provides for organized shopping centers offering a wide range of goods and services. These centers have large central parking areas enabling customers to walk from store to store. Because one-stop shopping is the objective, auto-oriented uses like drive-ins and garages are generally excluded. Community commercial areas are generally one-story in height with 30% building coverage, centrally located within ample parking areas. Canopy tree cover is now required on large parking areas.

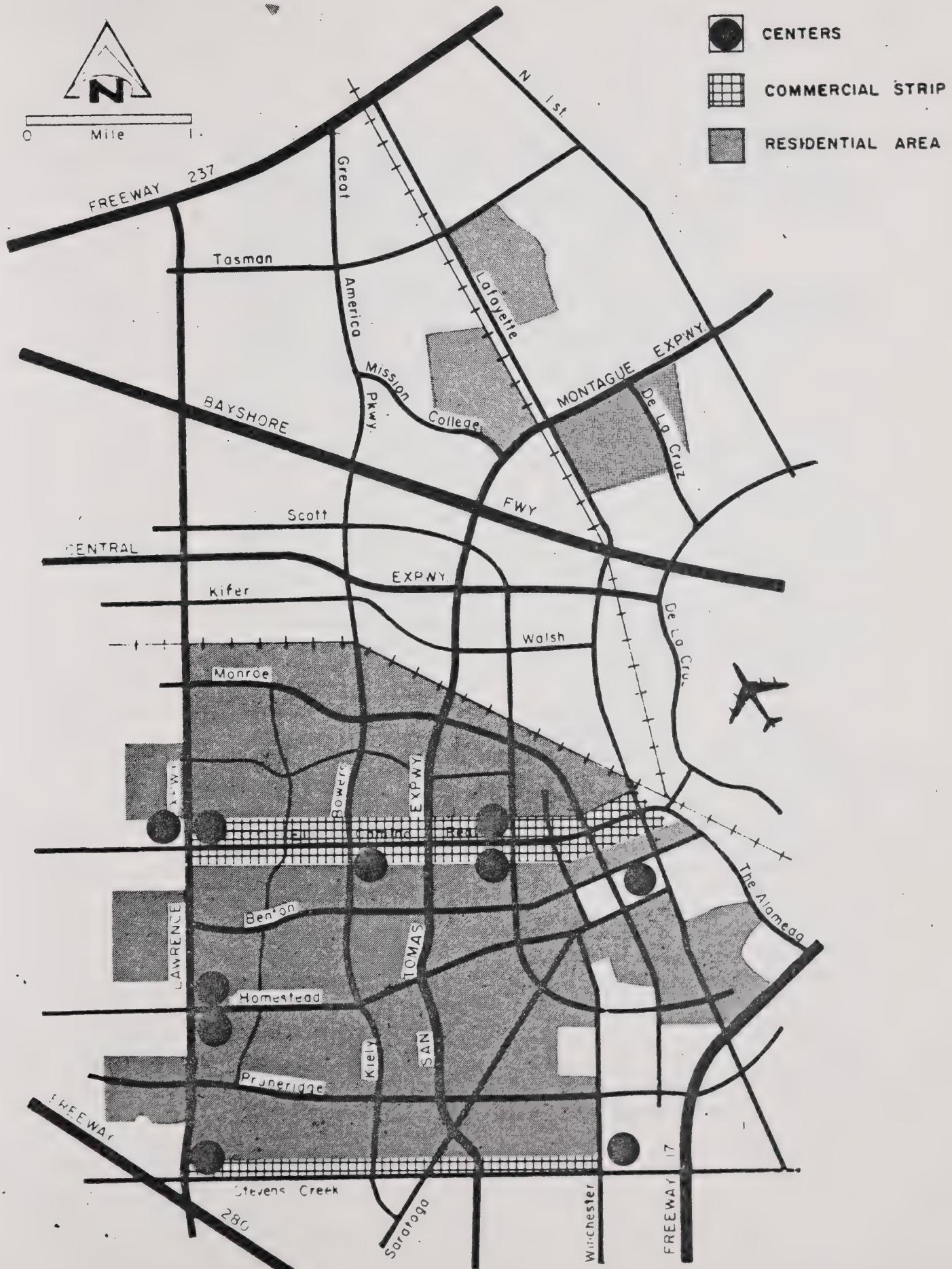
CONVENIENCE SHOPPING

CENTER

RESIDENTIAL AREA



COMMUNITY SHOPPING



V. Elements of the Plan
A. Land Use

Thoroughfare commercial areas are designed for uses which are appropriate to major street locations and dependent on individual automobile access. Common uses include auto sales, garages, motels, and those requiring outdoor displays. Development is largely one-story in height with 30% building coverage and landscaping at the street frontage.

The multi-purpose district is intended to provide for a concentration of commercial and office uses in the central business area. This district encourages a wide variety of specialized uses that draw from a large market area. Building coverage of 100% with no height limitation will permit intensive development.

The tourist commercial classification provides for high quality hotel, recreation, and tourist-oriented activities serving a regional market. Freeway access, large lots of one acre or more, generous landscaping, and large buildings with ground coverage of 30% or less are intended. The two major features in the tourist commercial area are the 300-room Marriott Hotel and the Marriott Theme Park which is expected to attract over two million visitors per year. Considerable care will be needed to insure that fast food outlets and other uses attracted to the area do not detract from the quality of development necessary for its success.

Commercial facilities now use approximately 1100 acres of land, primarily along El Camino Real and Stevens Creek Boulevard in the form of strip commercial interspersed with shopping centers. In 1968, there were 1,700,000 square feet of retail floor area in the City, one million of which was located along El Camino Real. The most recent study (1975) found that Santa Clara now has 1,520,000 square feet of retail floor area in shopping centers alone. The largest single center is Stevens Creek Plaza, 370,000 square feet. With the exception of the regionally oriented tourist commercial park area, the retail needs of the City and surrounding area are well met by existing development. Future retail expansion will be closely related to the growth of the population and its income in the service area. Since this growth will be limited by the lack of vacant land, retail acreage should be held near present levels in order to maintain commercial vitality. The attractiveness of the major commercial streets can be enhanced through reducing visual clutter and maintaining high design standards.

V. Elements of the Plan
A. Land Use

3. OFFICE

In 1975, there were approximately 500,000 square feet of offices with locations in the commercial strips, downtown redevelopment area, and developing industrial parks. Many of the new industrial buildings combine significant office space with manufacturing and storage areas. Building intensities will vary from high core area tower buildings to one-story neighborhood facilities.

4. INDUSTRIAL

The Land Use Map distinguishes among three types of industrial land use. They differ basically as to the nature of industrial processes and the resulting external effects such as appearance, outdoor activity, and noise.

Industrial park areas provide an environment for development and protection of modern, large scale administrative facilities, research institutions, and specialized manufacturing organizations. They create an attractive working environment with park-like grounds, well designed buildings, ample parking, and other amenities appropriate to an employee oriented activity.

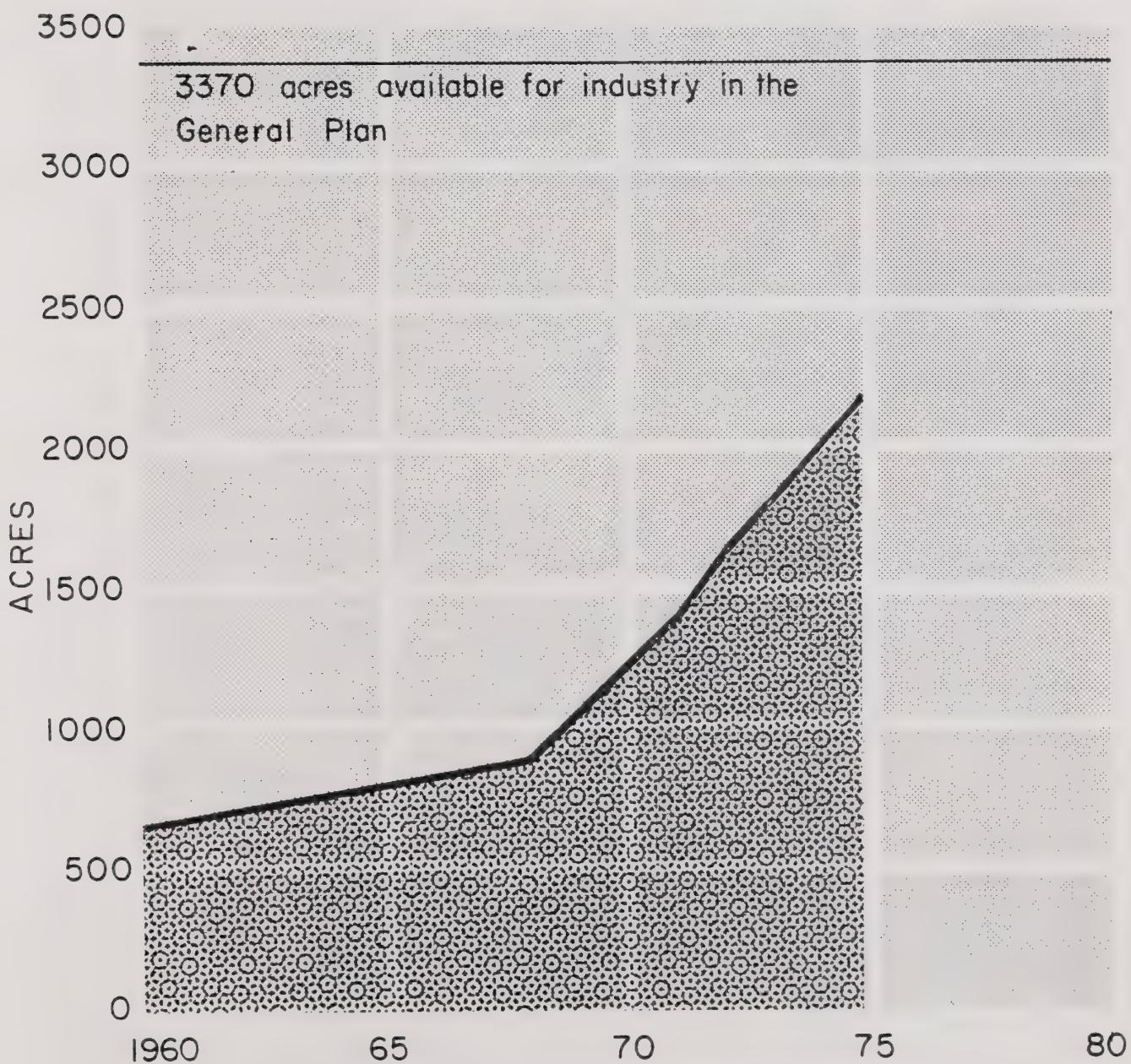
The light industrial areas are for a wide range of industries that operate substantially within an enclosed building. Street frontage is landscaped and ancillary storage and outside activity screened from view.

Heavy industrial areas allow any manufacturing or industrial operation that can meet minimum standards to insure the purity of the air and waters of the Bay Area and protection of nearby uses. Uses with special characterization such as wrecking yards, chemical processing plants, slaughter houses, and distilleries must receive a use permit before locating in these areas.

Approximately 3400 acres or 30% of the City's area is committed to industrial use. The majority of this land is located north of the Southern Pacific Railroad which separates industry from the residential uses to the south. Access to the area is provided by the Bayshore Freeway, SPRR, and the San Jose Airport. The County expressway system and local arterials permit direct connections between industrial sites and regional transportation links.

Since the late 1960's, the industrial development of Santa Clara has been rapid. Between 1968 and 1975, developed industrial acreage increased from 860 acres to 2170 acres,

CITY OF SANTA CLARA GROWTH OF INDUSTRIAL LAND USE



V. Elements of the Plan
A. Land Use

an average of 187 acres a year. At this rate, the City's industrial land would be fully developed in seven years. Realistically, the absorption rate will decline as land prices increase and the selection of sites decreases. Santa Clara's industrial reserve is expected to be adequate to 1990.

The character of industrial development in the City has changed over the last ten years. The early uses were primarily heavy industrial, requiring inexpensive land and rail and truck access. The second phase of growth has been electronics manufacturing in large plants with high employee densities. As the industrial area expanded, new uses have developed to serve the electronics firms. These include components suppliers, business services, and retail commercial.

Increased commute traffic is a major impact of the new industrial character. The electronics firms and office uses have significantly higher employee densities than were projected for the area in the 1960 General Plan. Instead of 30,000 industrial employees, current projections indicate the industrial area will employ 75,000 people by 1990. The consequences of this increase are considered in the Circulation Element.

In those areas where industrial land uses abut residential, special measures are necessary to reduce adverse impacts on the residences. One effective method is to prevent any industrial use other than employee parking in the area between the industrial buildings and residential property. In addition, the walls facing homes should be solid to block the sounds of manufacturing processes. Visual privacy can be maintained by providing a masonry wall along the property line in conjunction with significant landscaping.

5. PUBLIC LANDS

Twenty percent of Santa Clara is owned by various public agencies. Nearly half of the public land is City-owned, including parks and recreational facilities, fire stations, the Civic Center and the cemetery. The Santa Clara Unified School District is the other major public owner with over 500 acres of school sites. Other significant public land-owners are the State of California (Agnews Hospital), West Valley College District (Mission Campus), and the University of Santa Clara.

V. Elements of the Plan
A. Land Use

5. URBAN RESERVE

The Land Use Element map indicates an urban reserve in the north end of Santa Clara. This land is City-owned and most is used or planned for sanitary landfill over the next 15 years. As Santa Clara approaches complete development, this reserve will become an increasingly valuable resource. Unanticipated developments requiring large acreages may arise which the City would be able to accommodate on this reserve.

In the short term, this land can be used for landfill, agriculture and other non-permanent uses to provide economic return and ensure flexibility for future projects of opportunity.

V. Elements of the Plan
A. Land Use

LAND USE POLICIES

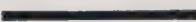
1. Preserve single family areas where the General Plan indicates their continued use through encouragement of upkeep and investment to maintain residential values.
2. In portions of the Old Quad designated for apartments, new residential construction will be permitted at higher densities when meeting criteria ensuring compatibility with existing uses.
3. Create a multi-purpose activity corridor of high intensity mixed land uses along an east-west axis with the University Redevelopment Project at its center.
4. Concentrate new local-oriented commercial development in existing thoroughfare, community and committed neighborhood commercial areas to enhance their economic vitality and prevent the intrusion of commercial activity into residential areas.
5. Promote visual improvements in commercial uses along El Camino Real and Stevens Creek Boulevard to increase their attractiveness to shoppers and their sales activity.
6. Maintain the urban reserve as a resource to accommodate future land use needs and opportunities.
7. Enhance the distinctive character and quality of Santa Clara throughout the City. Elements of this character include tree shaded streets, landscaped medians, courtyards and fountains.

CIRCULATION

LIMITED ACCESS

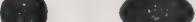


THOROUGHFARE



COLLECTOR

GRADE SEPARATION



RAILROAD




V. Elements of the Plan
B. Circulation

VB CIRCULATION

1. INTRODUCTION

Due to its central location, Santa Clara is strongly effected by the movement of people and goods in the region. To facilitate this vital circulation, an extensive and effective network of highways and arterials has been constructed. Around this network, a highly mobile and automobile-dependent economy developed. Because of this dependence, past planning assumption has been that growing travel demands would be accommodated by increased road capacity. Planning for Santa Clara's transportation system now has reached a new stage.

Projections of future traffic volumes indicate that the travel demands of this region cannot be satisfied by the current patterns of circulation. Although the most critical problems may not occur before 1980, the long time lag between transportation planning and implementation requires that the basic decisions regarding the structure and operation of the future transportation system be made now.

The most important influence on the City's circulation system is the industrial complex that stretches from Palo Alto through Santa Clara. This complex is the major electronics concentration in the United States. This concentration of electronics and related industries has been essential to the rapid development of new technologies and employment opportunities. The wealth of this County is largely based upon this concentration and interaction of industries. It is therefore necessary to maintain a circulation capability to meet the demands of increasing intensity.

Also highly influential on the amount of traffic travelling within the County is the pattern of land use. Residential growth preceded industrial development as both moved south-erly down the Peninsula. As a result, the major place for residence for industrial workers is south and east of their work destination. Large numbers of these workers travel to and through the City of Santa Clara on their way to work.

At the same time the trend of automotive usage has been towards an increase in the number of cars owned by each family and a reduced average auto occupancy for trips.

The result of these factors has been a continued increase in the number and use of automobiles within the City and County of Santa Clara.

V. Elements of the Plan
B. Circulation

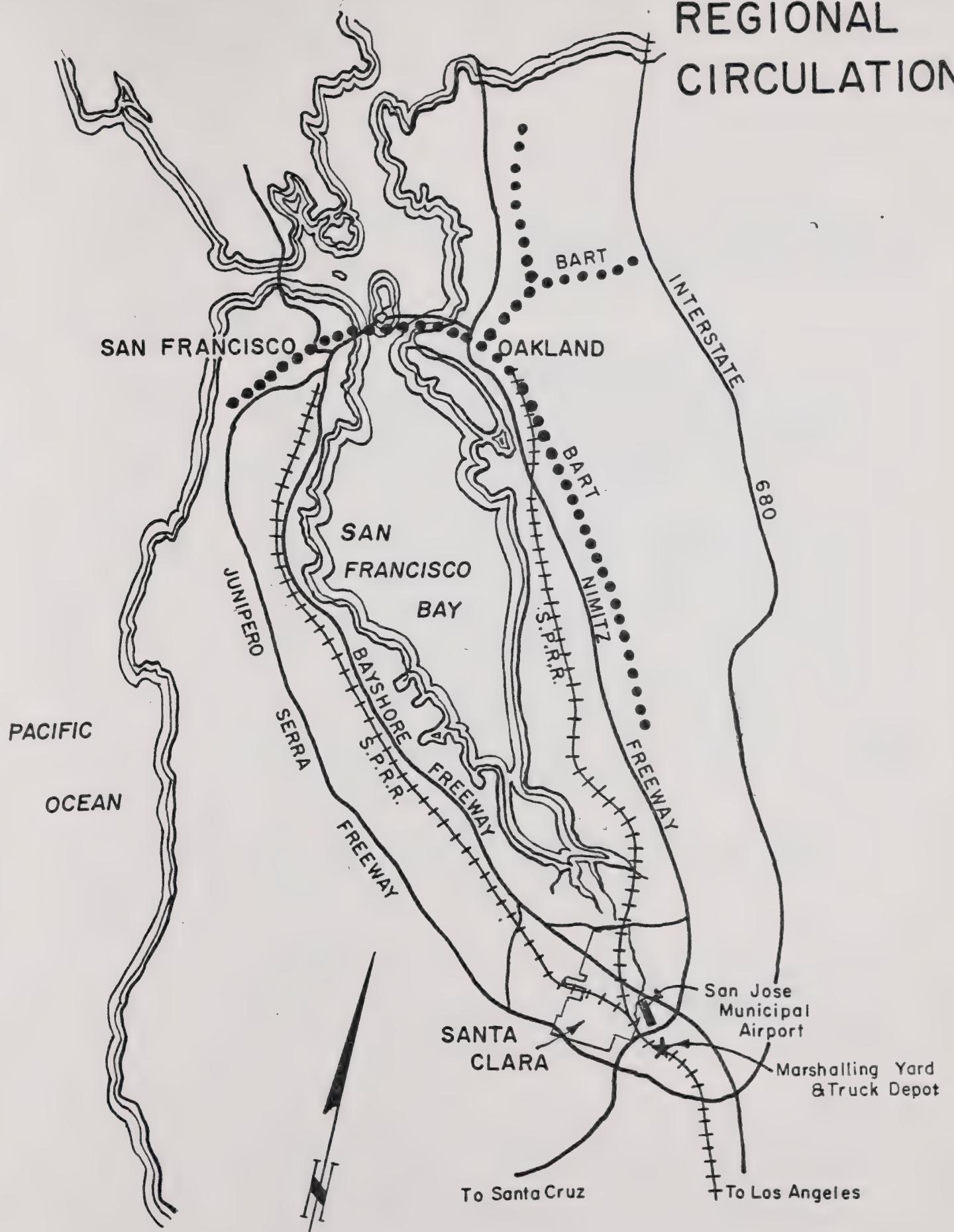
The street system serving Santa Clara is a well planned transportation network relying on automobiles. The total system has three levels of jurisdiction: the local streets of the City of Santa Clara, the expressways of the County and the freeways, and highways of the State.

The freeways and expressways in and around Santa Clara are becoming increasingly congested. Projections of future commuting hour traffic volumes exceed planned capacities. Local streets are not congested and traffic projections for most of these facilities can be accommodated. However, spillover traffic from overloaded regional highways would impact local streets and must be considered relevant to this City's transportation planning.

The Santa Clara County Transit District provides bus service within the County. Expansion plans for 1977 will increase the system to 516 buses providing service within a quarter-mile of 77% of the urban area. Most routes will have 15-minute headways. Transit district operations, however, serve primarily residents without access to cars and do not provide an effective system for commuters. The service is neither convenient for home-to-work trips nor does it have adequate capacity to make a noticeable reduction in automotive usage.

The pattern of development in the Santa Clara Valley has resulted from the mobility and flexibility that the private automobile provides. Private automobiles suit the desires and life style of most residents of this area and will continue to be the primary means of movement for most trip purposes through 1990. The major challenge in meeting future circulation needs will be to reduce the number of private automobiles used during the peak commuting hours.

REGIONAL CIRCULATION



2. MAJOR ISSUES

There are three major factors that must be considered in planning for the City's future circulation system: growth in travel demands, changing automobile usage, and environmental consequences.

A. Growth in Travel Demands

A major analysis of Santa Clara's street system was made in 1959 as a part of the City's first General Plan. At the same time, the County was designing the expressway network. A primary design criteria of both the local and County-wide road systems was to accommodate peak hour traffic volumes generated by projected employment growth.

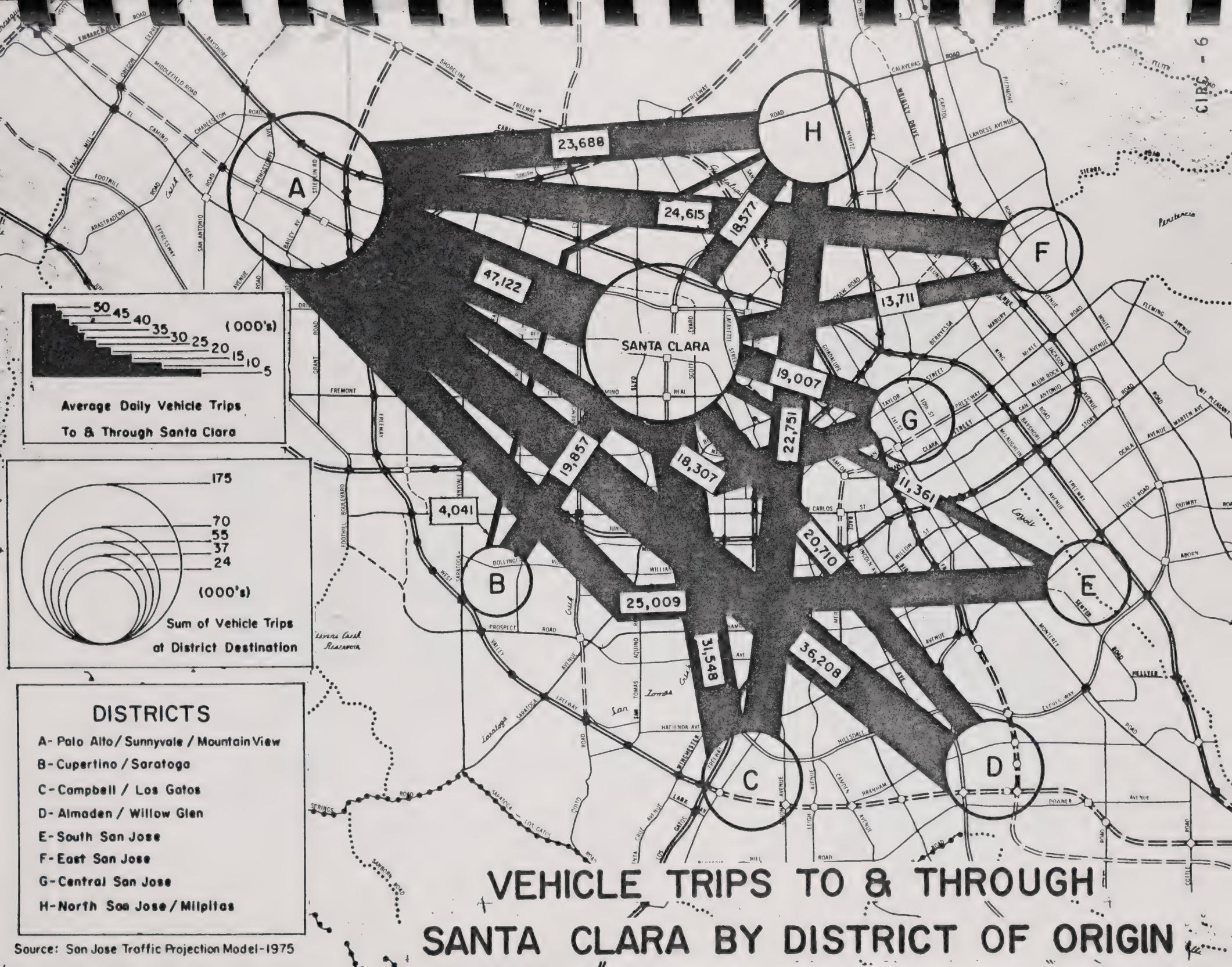
The 1959 General Plan projected 2400 acres of industrial land in 1985, with 30,000 employees and a density of 12.5 employees per gross acre. A 1971 industrial survey found that light industry, which was becoming predominant, had employee densities averaging 30 per gross acre. Industrial development since 1971 has been providing parking at a ratio consistent with employment densities of 42 employees per gross acre. By 1975, industrial employment had already reached 27,000 on 1900 acres. The City's largest employer is expanding to 5600 employees with a density of 87 workers per gross acre. In addition, office uses are developing in the industrial area with substantially higher numbers of employees and higher generation of traffic.

The current General Plan commits 3400 acres to industry. Projecting recent employment densities (42 employees per gross acre) onto this land, the industrial area could accommodate 75,000 employees by 1990.

The residential development in Santa Clara primarily occurred in the late 1950's and 1960's. Since that time, local residential development has been limited to the remaining vacant parcels. The turnover rate in the City is very low. With the rapid rise in the number of industrial workers in the City, the available and projected housing cannot meet the demand.

The major area where new housing is being constructed is south San Jose. This creates an increased separation between place of work and home and requires the worker to commute a longer distance. As industrial growth continues in the City and the housing supply remains the same, the number of workers that must commute into the Santa Clara industrial

VEHICLE TRIPS TO & THROUGH SANTA CLARA BY DISTRICT OF ORIGIN



V. Elements of the Plan
B. Circulation

area and the industrial areas to the north will increase. This also means that the through traffic during the peak commute periods will continue to grow.

Santa Clara has developed a substantial excess of jobs over resident workers. The attractiveness of the City's industrial area and the advantages of proximity for related industries will continue the local growth of employment here for the near future. In the longer term, however, industrial growth will shift to the south and reduce the amount of travel required by employees. San Jose's General Plan recognizes this imbalance within the County and includes a policy of attracting new industry to south San Jose.

B. Automobile Usage

The total number of trips produced by each household has increased since 1965.

DAILY TRIPS PER HOUSEHOLD

Income	Single Family		Apartment	
	1965*	1975**	1965*	1975**
Low	7.3	7.1	5.6	6.1
Medium	10.7	11.6	7.3	8.1
High	13.1	13.9	9.0	9.7

*Santa Clara County Transportation Planning Study, 1969
**San Jose Traffic Projection Model, 1975.

In addition, there has been a decrease in the number of persons per vehicle for all trip purposes except for school-related trips. The following table compares 1965 person-per-vehicle rates with those for 1975. Using this table, for every 1000 employees in 1965, there would have been 854 cars used for commuting. In 1975, for that same 1000 workers, there would have been 917 cars.

V. Elements of the Plan
 B. Circulation

AUTO OCCUPANCY BY TRIP PURPOSE

Trip Purpose	Persons per Vehicle 1965*	1975**
Home Based--		
Work	1.17	1.09
Shopping	1.34	1.22
Social-Recreation	1.85	1.63
Miscellaneous	1.61	1.57
School	1.86	2.54
Non-Home Based	1.44	1.33

*Santa Clara County Transportation Planning Study, 1969.

**San Jose Traffic Projection Model, 1975.

The combined effect of these factors is that there are more persons desiring to drive in and through the City than in the past.

C. Environmental Consequences

1. Air Pollution

The automobile is the major contributor to air pollution in the Santa Clara Valley. The automobile contributed 78% of the total air pollution emissions in the Bay Area, including 92% of all carbon monoxide. The Federal government has set minimum air quality standards for air basins throughout the nation. In 1974, the San Jose monitoring station recorded 69 days of excess oxidants.

The major effort to reduce the air pollution due to cars has been the addition of emission control devices on individual automobiles. Projections, however, indicate that the continued growth in the number and usage of automobiles outweigh the ability of these control devices to reduce pollution.

2. Noise

The automobile is second to the airplane as the largest contributor to noise within the City of Santa Clara. The Noise Element indicates that residential uses adjacent to the Lawrence and San Tomas Expressways as well as several major thoroughfares are impacted by traffic noise levels in excess

V. Elements of the Plan
B. Circulation

of recommended limits. Because this noise is a result of engine noise, tire noise, and wind resistance, it is difficult to control on an individual automobile basis. The construction of a masonry wall between an expressway and homes is the most effective control. Both the State and County have noise wall programs that will reduce substantially the traffic noise impact. Such walls cannot be built on local streets where adjacent properties front on the street.

3. Energy Costs

The automobile is the single largest user of petroleum products in the United States. All other forms of transportation except airplanes are more energy efficient than the automobile in terms of moving a person over a specified distance. Although most automobiles can carry at least four people, 75% of the cars being operated at one time in this country carry only the driver.

	<u>Passenger Miles per Gallon</u>
Rail Transit, Peak Load	540
Intercity Bus, Peak Load	282
Standard Car, Max. Load	108
Average Commuter Car	19

Source: "74-'75 Transit Fact Book", American Public Transit Association, March 1975.

The increasing relative shortage of petroleum products is reflected in the rising costs of fuel, particularly gasoline. All of the costs associated with owning and operating an automobile, including its purchase price, insurance, maintenance, and fuel have increased significantly in recent years. This inflation may cause people to look more carefully at their personal transportation costs and to seek alternatives to using their private automobile with only one person in it.

V. Elements of the Plan
B. Circulation

3. ANALYSIS OF THE TRANSPORTATION SYSTEM

A. Road Network

The road network is composed of four levels of streets: limited access such as freeways and expressways, thoroughfare, collectors and local; each of them has distinct physical and operating characteristics. Limited access facilities are planned and constructed by either the State (freeways) or the County (expressways). Local jurisdictions are largely responsible for other streets.

The major streets under the control of the City of Santa Clara are nearly complete. There are some thoroughfares where sections have not been constructed to their full planned width. Some undeveloped areas also do not have local access roads built yet.

The regional highway system within the City has been largely constructed, although not yet to planned standards, particularly for interchanges. The accompanying "Needed Regional Network Improvements" map indicates the primary areas of deficiency. These improvements would all involve State or County financing.

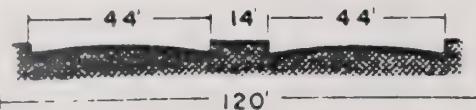
Outside of the City there are some major links in the regional highway system that have been long planned but are not yet constructed. The most important of these are the West Valley and Guadalupe Freeways which, although not serving the City directly, would provide alternate routes for through traffic.

A comparison of road capacity with traffic volumes in both 1975 and 1990 is made in the following maps. The current situation provides excellent mobility with limited congestion during peak commuting hours on major freeways and expressways.

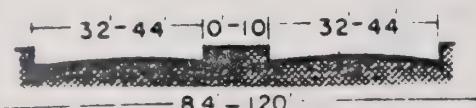
In 1990, the local City streets will still be adequate to meet travel needs. The regional network, however, will be unable to accommodate projected traffic volumes without a change in peak hour commute travel habits.

The assumption of the past, that as traffic demands increase the necessary street capacities would be constructed, is no longer valid. The rising financial, social, and environmental costs of massive highway construction have seriously depleted

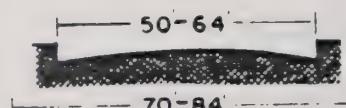
TYPES OF STREETS



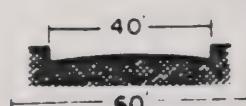
Limited access expressways and freeways are devoted to the task of traffic movement.



Thoroughfares are designed with 4 or more lanes to serve through traffic but also provide access to adjacent properties.



Collector streets carry traffic within an area to arterials and provide access to adjacent properties.



Local streets provide parking and access to adjacent properties.

NEEDED REGIONAL NETWORK IMPROVEMENTS



1975 TRAFFIC CONDITIONS

AVERAGE DAILY TRAFFIC

18 PRESENT VOLUME

(IN THOUSANDS)



1990 TRAFFIC PROJECTIONS

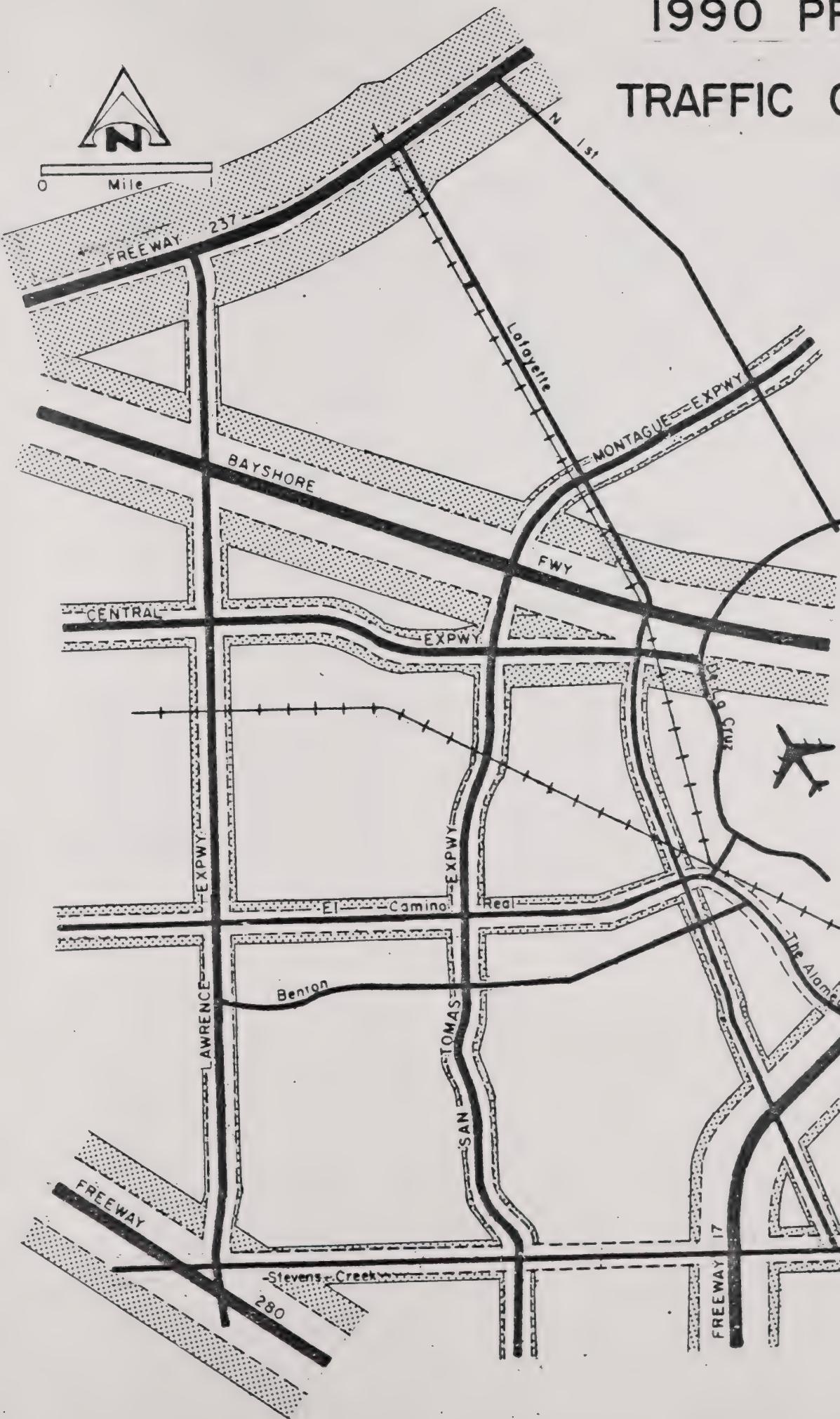
AVERAGE DAILY TRAFFIC

12 PROJECTED 1990 VOLUME

(IN THOUSANDS)



1990 PROJECTED TRAFFIC OVERLOADS



CIRC - 15

6/8/76

ADDITIONAL LANES NEEDED BASED ON 1990 TRAFFIC PROJECTIONS

ROAD	CAPACITY	EXCESS VOLUME	ADDITIONAL LANES NEEDED
	PER LANE	OVER PLANNED CAPACITY	IF TRAFFIC GROWTH IS NOT REDUCED
Route 101	16,667	94,000	6
Route 280	16,667	87,000	6
Route 17	16,667	28,000	2
Route 237	9,750	153,000	16
El Camino Real	6,500	16,000	2
STATE/COUNTY	Lawrence Expwy	16,000	2
	San Tomas Expwy	16,000	2
	Montague Expwy	5,000	0
	Central Expwy	64,000	10
	Stevens Creek Blvd (west of San Tomas)	17,000	2
SANTA CLARA/SAN JOSE	Lafayette Street (south of 101)	26,000	4

V. Elements of the Plan
B. Circulation

available construction funds and generated substantial opposition to any new construction. A preliminary estimate of the cost of constructing the freeway and expressway capacity needed for the County in 1990, including acquisition of the right-of-way and physical improvements is \$2.5 billion. This does not include the cost of improvements to local streets necessary to serve the new highways or the social costs of increased air pollution, energy consumption and dislocation of existing land uses and residents. The importance of this figure is not necessarily its size but the fact that the current revenue sources for highway construction are so inadequate.

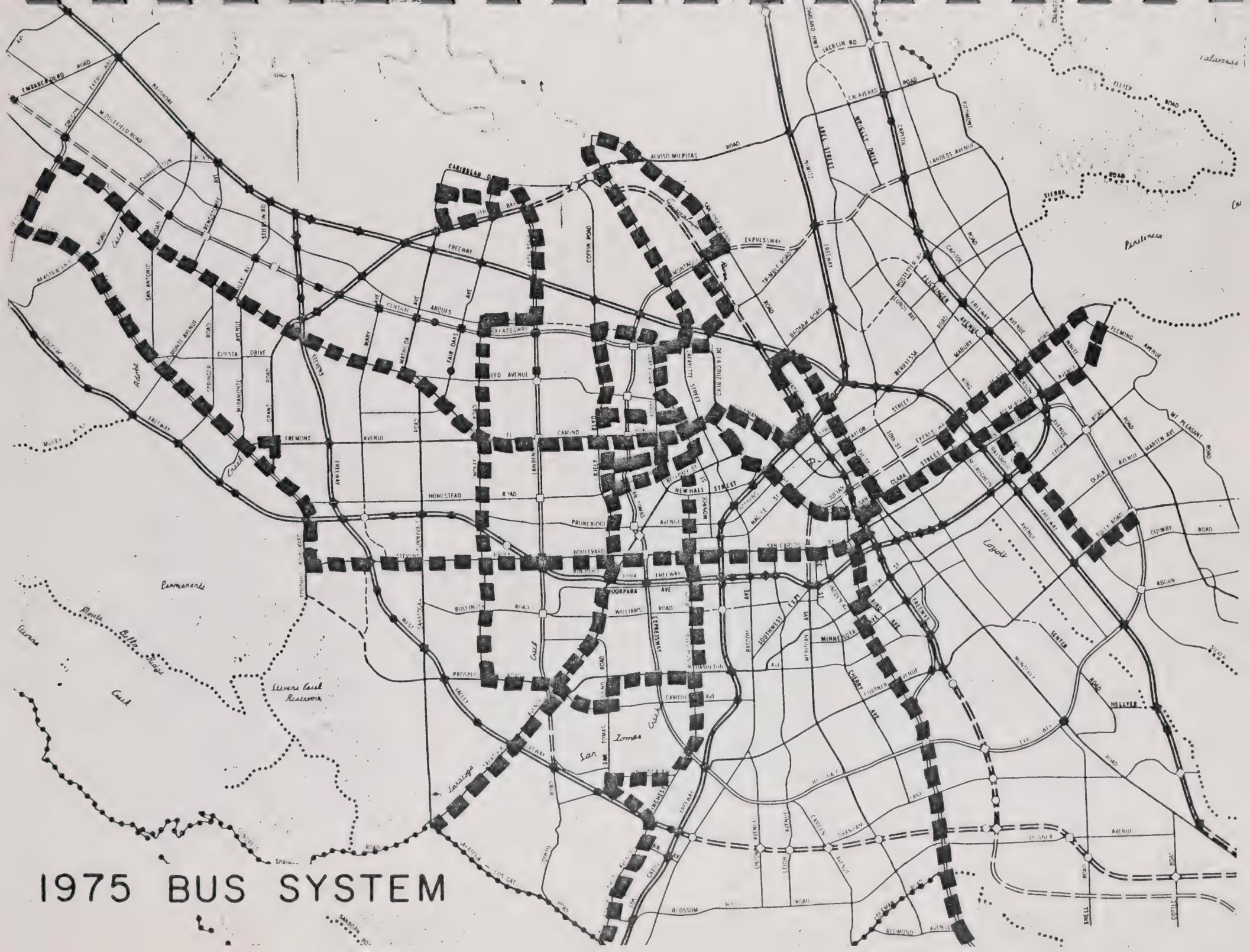
The implication of this slow down in new construction is that the future growth of automobile traffic will have to be accommodated on the existing roadway system. As traffic volumes grow, average speeds on freeways and expressways will decline and the amount of time spent commuting will increase. Motorists will attempt to use local streets to avoid congested highways, thus spreading the congestion to thoroughfares which would otherwise be adequate.

The performance of the currently planned road network can be significantly improved through a reduction in the number of automobiles used in the commuting period. Such a strategy would both eliminate any possible need for excessive highway expansion and maximize the existing investment in roads. Voluntary action by the traveling public such as carpooling and use of transit on home-to-work trips, incentive programs by employers, including staggered work hours and rewards for carpooling, the creation of an attractive transit service, and limited highway improvements can minimize peak hour congestion.

B. Bus Service

The Santa Clara County Transit District provides bus service within the County and connections to the Bay Area Rapid Transit terminal in Fremont. The District currently has 27 lines using approximately 200 buses. The routes are laid out in a modified grid pattern as shown on the accompanying map. A few buses are available for a subscription bus service, which provides service on a reservation basis for major employers and their employees. Sixty percent of the urban area of the County is within a quarter-mile walking distance of a bus line. Service levels on these routes are not high, with only three routes having 15-minute headways. The rest have 30-minute headways and none provide more than minimal service in the evening hours. The infrequency of

1975 BUS SYSTEM



V. Elements of the Plan
B. Circulation

this service and the lack of direct lines from residences to employment areas limit its ability to attract commuters. The major accomplishment of the bus service is to provide mobility to County residents without access to a car.

The Transit District has plans for expansion of the bus service to 516 vehicles with 46 routes during peak hours. This expansion will provide service within a quarter-mile for 77% of the urban area and will result in a majority of the routes having 15-minute headways. More applicable to the needs of a commuter is the proposal to commit 50 buses to peak hour express lines aimed at the home-to-work trip.

The subscription bus function will also be expanded to 25 buses. This service, while precisely aimed at the need for convenient direct service, suffers from the requirement that it be financially self-supporting and from its small size. By requiring the users to pay the full cost of the subscription bus, this service is placed at a disadvantage in comparison with other forms of transportation which are subsidized. The capacity of 25 buses is limited to approximately 1000 commuters, which is a very small percentage of the total commuting population and will not make a noticeable reduction in automotive traffic.

The operation of buses on regular streets results in 14 mile per hour average speeds since the buses must make stops for loading and unloading. In order to attract significant numbers of commuters, trip times on transit must compare favorably with those of a private automobile. Exclusive lanes for buses and car pools should be studied as a means of creating more rapid transit. They can be created on both existing and new freeways lanes or on lanes built in other rights-of-way. Exclusive lanes on expressways or thoroughfares present problems which must be resolved prior to implementation.

The County's Rapid Transit Development Project Report stated that an extensive rapid transit bus system could attract 34% of the home-to-work trips in 1990. Such a system would require more than 5,000 buses and the Report identified several operational problems.

In order to attract the commuter, transit service must offer a total travel time and convenience comparable to that of the private auto. A good local service within the industrial area and extended hours of service are necessary in addition to express buses. Good bus service is needed as a back-up for carpoolers, and the like who miss connections or forget the brown bag.

V. Elements of the Plan
B. Circulation

C. Trucks

The movement of goods by truck is an essential aspect of the circulation system. Santa Clara's extensive industrial complex as well as its commercial and residential areas rely on trucks. The grid system of thoroughfares and expressways encourages truck traffic to stay on these major streets and off local streets except for deliveries. Truck traffic has not created any special problems for the road network.

D. Taxis

Although the number of taxis in the City is relatively small, the service they provide is important. Taxis are the only form of transportation available 24 hours a day, seven days a week for residents unable to drive.

Whenever only a small number of residents need a specific transit service, taxis may be the most cost-effective means of delivery.

E. Rail Transit

The current rail system within the City consists of the Southern Pacific main lines to San Francisco, Oakland, Los Angeles and points east from San Jose. The major freight marshalling yards for the Peninsula area and piggy-back loading area are located adjacent to the City. These facilities provide important freight service for Santa Clara's industrial area, which has many plants with rail access. Southern Pacific also operates a commuter service from San Jose to San Francisco with a station in Santa Clara. Ridership and service quality on the commuter trains have been declining over the last 20 years.

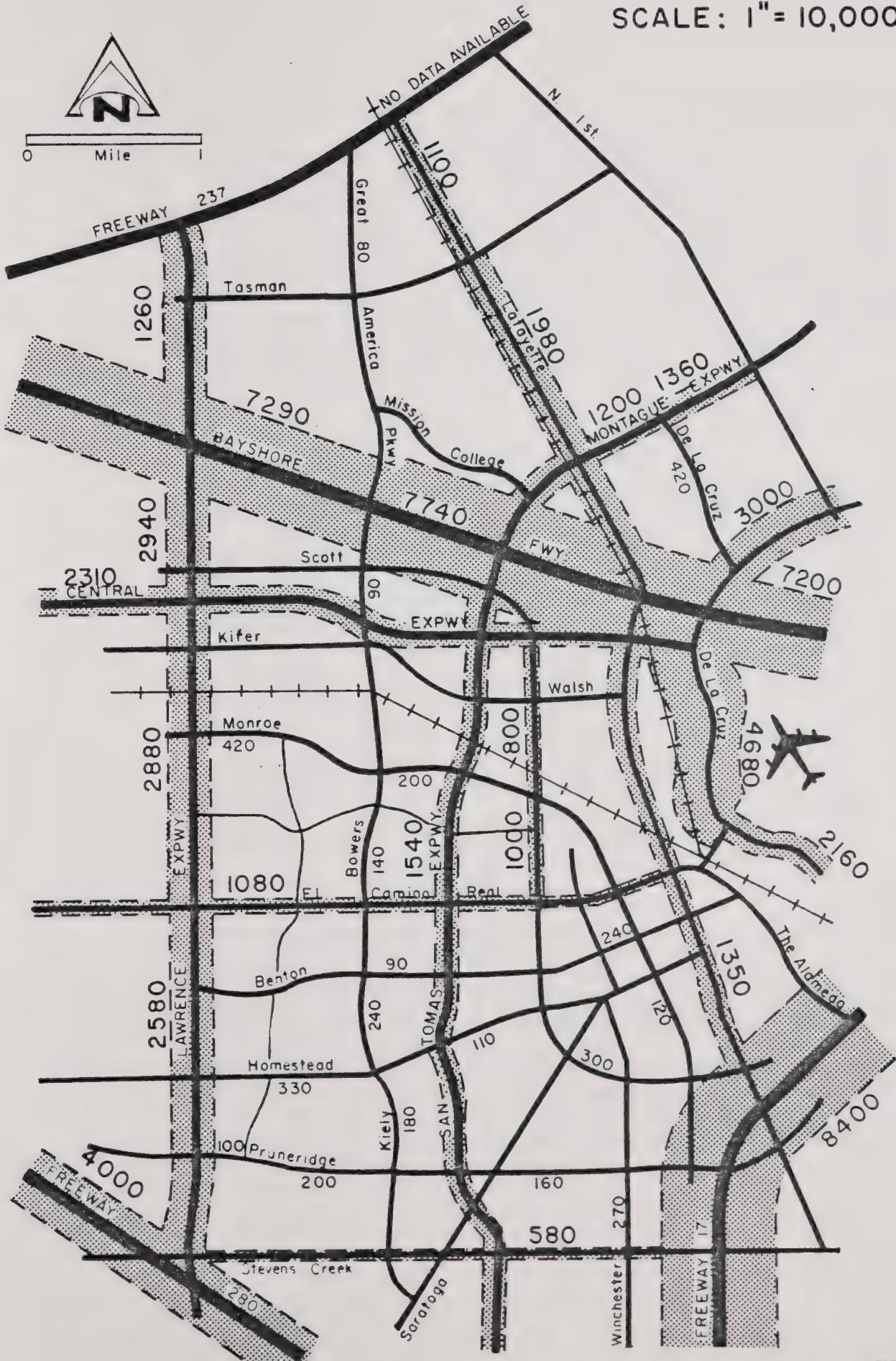
A wide range of rail technologies have been discussed as future transit possibilities for Santa Clara County.

1. Bay Area Rapid Transit (BART)

Extension of BART to San Jose would create a unified regional transit system. BART, however, depends on a high density narrow corridor of origins and destinations for its patronage. The County's Rapid Transit Development Project estimated that a BART loop from Fremont to Menlo Park would attract only 4% of the work trips in 1990. Given the high costs of its construction, the decentralized land use of Santa Clara County, and the limited amount of out-of-County commuting, BART is not a feasible alternative at this time.

DAILY TRUCK VOLUMES

SCALE: 1" = 10,000 TRUCKS



CIRC.-22

SOURCE: TRAFFIC DIVISION SURVEY
OCT. 1974 - NOV. 1974

2. Medium Capacity Rapid Transit (MCRT)

MCRT is the product of the County Rapid Transit Development Project and, in conjunction with a high performance feeder system, is projected to attract 30% of all trips in the County. MCRT would be an advanced technology system using elevated guideways, cars carrying 20 to 30 passengers, and automated operations. The minimum size of MCRT would have 140 miles of guideway and would cost at least \$2-3 billion (1974). Even with such a network, less than 14% of all work trips would start and finish within a half-mile of any station. MCRT would require an extensive bus feeder system to be successful.

3. Light Rail

Light rail is an old concept that has recently become popular due to the high cost and disappointments with advanced technology systems. Light rail is basically an electric trolley car running on ground level steel rails. It is cheaper to build than BART, although still expensive. Operationally, light rail has been well tested in many systems, including the San Francisco Municipal Railway. County officials suggested that such a system could be developed, at least initially, within existing Southern Pacific or unused freeway rights-of-way. Like MCRT, a light rail system would also require an elaborate feeder system. As currently proposed, this system would not serve Santa Clara or other high volume North County corridors. If the light rail system is built in conjunction with an upgraded Southern Pacific rail service, it will enable residents of south San Jose to use rail transit to reach industrial jobs in and north of Santa Clara.

4. Southern Pacific Upgrading

Another transit possibility currently being studied is improvement of the commuter service on the Southern Pacific Peninsula line. Increases in patronage could be achieved through better access to stations, more commuter trains, and relocation of the downtown San Francisco station to either the Daly City BART terminal or the Trans-Bay bus terminal. The value of this service to intra-county commuters would be greatly enhanced if the service could be extended along the SP line to the IBM area in south San Jose, and if stations were added at the San Tomas and Lawrence Expressways for access to the industrial area.

V. Elements of the Plan
B. Circulation

An upgraded Peninsula line would be only a trunk line, and again, would require an extensive feeder system. Its main advantage is as a lower cost alternative to BART which could be implemented on a staged basis. Patronage levels are estimated to be similar to the BART loop.

F. Air Service

The San Jose Municipal Airport is located on the eastern boundary of Santa Clara and provides an extensive schedule of flights. The location of the airport and its flight patterns have created a substantial noise impact on the residential area in northern Santa Clara and in downtown San Jose. Although alternate airport sites have been considered, the problems of relocating the airport, such as cost, displacement of current activities, and environmental impacts, have effectively eliminated this possibility.

The San Jose Airport is an important part of the total economy of Santa Clara County and should not be eliminated. The best method of resolving the noise conflict between airport and the Santa Clara residential areas is for the airport to maximize the use of the newer generation of planes which are substantially quieter and to make the necessary adjustments in flight schedules in order to reduce the noise impact area.

G. Bikeways

Santa Clara is well suited for bicycle riding because it is level and has a mild climate. Bicycling will undoubtedly increase although it will not result in a significant reduction in the use of cars.

Except for limited access highways, all streets within the City can be used by bicyclists. There are safety problems involved in the joint use of streets by cars and bikes. Alternatives for bikeway range from sign identification of a street as a bike route, marking the street surface as a bike lane to providing a bike path separate from a street. It must be remembered that bicyclists are inclined to travel by the shortest route and are disinclined to follow devious routes just to avoid this conflict.

Santa Clara currently has eight streets marked with bike lanes. In the newer industrial and Bayshore North areas, on-street parking has been prohibited, which provides space adjacent to the curbs for bicycles. The City should provide adequate, secure bike racks at major public facilities and encourage major employers to do the same.

EXISTING CITY BIKE LANES



V. Elements of the Plan
B. Circulation

h. Sidewalk

As part of development, the City requires developers to construct sidewalks in all residential and commercial areas to facilitate safe pedestrian movement

The decision concerning the future role of public transportation in Santa Clara County is one of the most important facing this area. The variety of rapid transit modes does not make this decision any easier and each mode has its interest group. The current financial constraints do not encourage commitments to major long term public works construction. Given these factors, the next ten years' commitment should be to buses which are relatively inexpensive, have high flexibility, and utilize existing public investments in the road network.

4. NEW DIRECTIONS IN TRANSPORTATION PLANNING

Dealing with the transportation problems over the next 15 years will require public and private actions in many areas, including land use, travel habits, incentives for carpooling, and providing attractive alternatives to the present exclusive use of private automobiles. No one action will provide a solution to the increasing travel demands of residents in and around the City of Santa Clara.

Time is the key to attracting commuters. Other factors such as cost or comfort are secondary to the door-to-door travel time. Transportation improvements which decrease travel time for car pools and transit are the most effective incentives.

CHANGING HOW PEOPLE GET TO WORK OFFERS THE GREATEST POTENTIAL FOR MAINTAINING DESIRED MOBILITY IN SANTA CLARA. In contrast to many other trips, commuting occurs in predetermined, regular times. Attractive alternatives should be developed to allow commuters to give up the cost of each driving their own car to work.

1. ENCOURAGE VOLUNTARY STAGGERING OF WORK HOURS TO SPREAD OUT THE MORNING AND AFTERNOON TRAFFIC PEAKS.

Except for the peak commuting hours, the existing road network has excess traffic carrying capacity. By spreading out the peak hour periods, better use can be made of the existing system and the requirements for new expenditure can be reduced.

In an actual test of work hour staggering in the City of Riverside, employers representing 12,000 commuters were involved. With starting time changes of a half hour or less, the downtown morning peak hour traffic was cut in half.

2. SUPPORT ADDITIONS TO THE MAJOR ROAD NETWORK IN THE CITY WHEN THEY INVOLVE IMPROVEMENTS WITHIN EXISTING RIGHTS-OF-WAY OR PLAN LINES, INCLUDING INTERSECTION MODIFICATIONS.

Significant expansion of the adopted major City street system is not necessary. Based on increasing congestion, improvements to the State and County highways should be the highest priority.

Further thoroughfare construction efforts in the City should be limited to improving to adopted plan lines and to eliminating capacity bottlenecks.

V. Elements of the Plan
B. Circulation

3. CONCENTRATE THROUGH TRAFFIC ON MAJOR STREETS.

Major arterials should be designed with; a) synchronized traffic signals, continuous medians, and other features designed to facilitate traffic flow; b) reasonable control of driveways, sight distances, and curbside parking to minimize interference from the sides; c) highest possible posted speeds within acceptable safety limits.

4. ENCOURAGE CONSTRUCTION OF MISSING LINKS IN THE REGIONAL TRANSPORTATION SYSTEM THAT WOULD IMPROVE TRAFFIC FLOW ON FREEWAYS AND EXPRESSWAYS.

The deletion of many planned improvements of the regional system has created gaps in the network that effect other highways and local thoroughfares. The completion of some of these segments would have important benefits for the efficiency and operation of the whole system.

a) West Valley Corridor - This would provide a direct connection between southern San Jose and the West Valley area and would relieve some congestion on Routes 17 and 280.

b) Grade Separations on San Tomas Expressway - The current intersections with Stevens Creek Boulevard and El Camino Real are serious bottlenecks to the optimum capacity of the San Tomas Expressway.

c) Upgrade Route 237 - This highway is the major route between the Milpitas/Fremont area and the West Valley industrial centers. It has the highest project traffic overload.

5. ENCOURAGE THE USE OF CAR AND VAN POOLS THROUGH VOLUNTARY INCENTIVES.

Home-to-work pooling can be promoted by the public sector through:

a) A program of education showing the cost savings in a carpool;

b) Preferential treatment, when feasible, for buses and carpools;

c) Limited on-street parking in industrial areas;

V. Elements of the Plan
B. Circulation

- d) Allowing fewer parking spaces for large industrial employers with a proven program to reduce the number of cars used by employees;
- e) Encouraging voluntary action by employers.

Industrial employers can promote carpooling and transit through:

- a) Reservation of convenient parking for carpools;
- b) Pay parking;
- c) Company van for employee commuter pools.

6. PUBLIC TRANSPORTATION SHOULD BE DEVELOPED BY THE COUNTY TRANSIT DISTRICT IN STAGES BASED UPON PATRONAGE AND AVAILABLE FUNDING. THE BUS SYSTEM SHOULD BE EXPANDED WITH STRONG EMPHASIS ON COMMUTER SERVICE.

The bus routes established by the 500 bus system will provide adequate service for most residents without access to a car. Further expansion to 1000 buses should emphasize the home-to-work trip. Peak hour service and high employment areas must become the top priority of the Transit District.

The current bus system has a major transfer point at the Franklin Mall on Monroe Street. This area should continue as a focal transit station within the City and should be provided with appropriate physical facilities such as benches, shelter, parking and perhaps a terminal building like the old Bank of America building.

7. SUPPORT A TRANSIT SERVICE WHICH INCLUDES EXTENSIVE COLLECTION AND DISTRIBUTION SYSTEM WITHIN THE INDUSTRIAL AREA.

In order for employees to join in car and van pools or use the bus, there must be a means for them to get around during the day for short trips such as lunch. Non-peak hour service will also be necessary as a back up for riders who occasionally miss their normal connections. The fear of being stranded is a strong deterrent to carpooling or transit. Another reason for special industrial service is to provide a convenient connection between the express routes and industrial employers. Transfer stations should be established for this movement in the parking lots of major industrial employers such as Memorex and National Semiconductor.

V. Elements of the Plan
B. Circulation

8. THE ESTABLISHMENT OF A REGIONAL TRANSIT CONNECTION
BETWEEN SANTA CLARA COUNTY AND SAN FRANCISCO SHOULD BE
A LESSER PRIORITY THAN THE INTERNAL COUNTY SYSTEM.

A unified transit system tying the South Bay with the Peninsula, San Francisco and the East Bay is, conceptually, an attractive objective. The amount of movement between this County and San Francisco, however, does not warrant a major expenditure.

Given the existence of a rail right-of-way, existing track, and basic station locations, the Southern Pacific line should be the focus of consideration for the West Bay transit corridor. The Southern Pacific Transportation Co. has publicly stated their desire to discontinue commuter service on this line. Revitalization of this service would require more favorable management. Incremental improvements can be made to stations and service as funding and patronage levels warrant.

The extension of this service to south San Jose along the existing right-of-way would also create a high capacity trunk line to serve the major commuting corridor within Santa Clara County. This extension would provide direct service to major employers such as General Electric and IBM and to the rapidly developing residential areas in south San Jose.

V. Elements of the Plan
B. Circulation

CIRCULATION POLICIES

1. ENCOURAGE voluntary staggering of work hours to spread out the morning and afternoon traffic peaks.
2. SUPPORT additions to the City road network involving improvements within existing rights-of-way or plan lines including intersection modifications.
3. CONCENTRATE through traffic on major streets.
4. ENCOURAGE construction of missing links in the regional transportation system that would improve traffic flow on freeways and expressways.
5. PROVIDE and encourage incentives for the use of car and van pools.
6. PUBLIC transportation should be developed by the County Transit District in stages based on patronage and available funding. The bus system should be expanded with strong emphasis on commuter service.
7. SUPPORT a transit service which includes an extensive collection and distribution system within the industrial area.
8. THE establishment of a regional transit connection between Santa Clara County and San Francisco should be a lesser priority than the internal County systems.

V. Elements of the Plan
C. Housing

VC HOUSING

1. INTRODUCTION

The Federal Housing Act of 1949 established a national goal of a "decent house and a suitable living environment for every American family." New legislation at both the national and state levels has now compelled local California jurisdictions to become directly and consciously involved in the provision of housing for their residents. The California State Planning Law requires that a housing element be adopted as part of a jurisdiction's General Plan which will make "adequate provision for the housing needs of all economic segments of the community." The basis of such a housing element is an analysis of the housing market as it operates in the jurisdiction and a formulation of appropriate goals and policies to remedy failures of the existing market. The nature of housing markets, however, makes it clear that city boundaries are an inadequate area of influence. Particularly in the Santa Clara Valley, where commuting volumes are large and widely distributed, a city represents only a portion of the larger economic market area.

In response to this situation, the cities and County of Santa Clara created a joint Cities-County Housing Element Program under the sponsorship of the Planning Policy Committee of Santa Clara County to evaluate the metropolitan housing market, collect data and prepare goals and policies for adoption. Through its membership in the Planning Policy Committee and the Santa Clara County Association of Planning Officers, the City of Santa Clara has participated in this program.

These group efforts resulted in publication of The Joint Housing Element, which "is intended to provide the context of the various findings and recommendations, establish some basic foundations for housing policies and programs, and provide a common framework from which individual jurisdictions may enlarge, refine and relate more explicitly to local circumstances."

In the City of Santa Clara's case, the most important local circumstances are the small amount of undeveloped residential land left and the commitment of the City to maintain existing moderate residential densities. The present policy of the City rejects the concept that the City must provide housing for as many people as wish to live here. Once the City's population reaches about 100,000, further significant growth

V. Elements
C. Housing

will have to occur elsewhere in the metropolitan area. However, it is also the policy of the City that the remaining future residential development be directed towards correcting deficiencies in the present housing supply and realizing the adopted housing goals.

2. INVENTORY

The City of Santa Clara had 27,850 dwelling units in 1970 to house its 87,717 residents. Over 80% of these units were constructed since 1950 to accommodate the rapid population growth that began soon after the war. In the decade of the 1950's, 13,876 units were constructed, 70% of which were single family homes. During the 1960's, 10,280 units were built but only 21% of these were single family. Single family units now comprise 60% of the existing housing stock in the City, compared to 83% in 1960.

HOUSING STOCK, CITY OF SANTA CLARA
1970 CENSUS

Type of Structure	Number	% of Total
1 unit	16,935	60.6
2 - 4 units	2,304	8.2
5 - 9 units	1,570	5.5
10+ units	5,177	18.5
Mobile	445	1.6
Not reported	<u>1,419</u>	<u>5.6</u>
	27,850	100.0

The tenure status of Santa Clara's units generally reflect home ownership of the single family units, 53% of all dwelling units are owned and 42% are rented. The vacancy rate was about 5% at the time of the census. These vacancies were almost all in rental units, the vacancy for sale factor being only a fraction of a percent. A more recent survey, October, 1974, of postal vacancies indicated that the City rate was less than 1%. Apartments had a 1.5% vacancy factor.

The City's stock seems to be well distributed in terms of unit size. The most common size is five rooms, which make up one-fourth of the total. Four-room and six-room units together total another 45%. If overcrowding is used as an indicator of how the housing stock matches the household sizes of the market, then Santa Clara has a good fit. Only 6% of the households have more than one person per room and of this only 1% have more than one and a half persons per room.

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 C. Housing

HOUSING COSTS, CITY OF SANTA CLARA, 1970 CENSUS

OWNER OCCUPIED VALUES

Value	Number	% of City Total	Comparable County Figures
Below \$5,000	14	0.1	0.1
\$5,000-9,999	72	0.5	0.6
\$10,000-14,999	393	2.9	2.9
\$15,000-19,999	2,104	15.3	12.6
\$20,000-24,999	5,168	37.7	25.7
\$25,000-34,999	5,191	37.8	35.1
\$35,000-49,999	747	5.4	16.0
\$50,000+	<u>37</u>	<u>.3</u>	<u>7.0</u>
Total Tabulated	13,726	100.0	100.0
Median Value	\$24,141		

MONTHLY RENTS

Rent	Number	% of City Total	Comparable County Figures
Below \$40	81	0.7	1.2
\$40-59	151	1.3	2.1
\$60-79	295	2.5	4.9
\$80-99	751	6.4	7.6
\$100-119	1,331	11.4	11.5
\$120-149	3,808	33.1	27.6
\$150-199	3,716	31.7	29.8
\$200-299	1,294	11.1	12.8
\$300+	39	0.3	
No Cash Rent	<u>178</u>	<u>1.5</u>	<u>2.5</u>
Total Tabulated	11,704	100.0	100.0
Median Rent	\$144		

V. Elements of the Plan
C. Housing

Housing costs in the City have risen sharply as they have all over the San Jose metropolitan area under the pressure of a growing population, land costs and interest rate. Single family houses that were built in the early 1950's for \$12,000 are now selling for \$30,000 and more.

The preceding two tables display the cost characteristics of the City's housing supply. Both the owner occupied and the rental ranges are more compact than the overall County figures. The City has a lower percentage of units at the extremes of the scale in each case. This "skew towards the middle" is most pronounced in the owner occupied units where the City has over ten percent more \$20,000-24,999 homes and 20% fewer \$35,000+ houses than the County distribution.

Assessing the condition of a community's housing stock is a difficult process with problems in defining just what the differences are between standard and substandard units and reconciling the varying judgments of individual inspectors. Because the results of previous census classifications were so inaccurate, the 1970 Census made no attempt to assess the overall condition of housing units. Instead, substandard indices were tabulated using those aspects of unit condition that could be objectively determined.

SUBSTANDARD INDICES, CITY OF SANTA CLARA
1970 CENSUS

<u>Index</u>	<u>Number of Units</u>	<u>% of Total</u>
Overcrowding		
1.01-1.5 persons per room	1,473	5.3
Over 1.5 persons per room	290	1.0
Low Value		
Owner occupied below \$15,000	479	1.8
Rental below \$100 per month	1,278	4.6
Lacking complete kitchen	138	0.5
No direct access	14	0.1
Lacking complete plumbing	107	0.4

V. Elements of the Plan
C. Housing

These indices indicate that the City's housing in general is in good condition. The figures become more significant, however, when the individual census tracts are examined.

By comparing each tract's percentage of the total housing supply with its percentage of index units, the distribution of the problems can be identified. The two tracts that encompass the pre-WWII section, the Old Quad and Agnew Village, have more than their expected share of the problem units. The only other tract that has substantially more than its expected share is in an industrial area. This can be explained by the lack of residential zoning protection which makes owners reluctant to invest additional money on upkeep and repairs.

The City's Housing Division made an exterior housing survey in 1975 of all single family buildings. Of the 18,397 homes surveyed, 95% were judged to be in standard condition and 0.7% (128 units) needed major repairs. Most of those needing rehabilitation (86) are in the Old Quad. The rest are scattered in other areas of the City.

V. Elements of the Plan
C. Housing

3. LOCAL MARKET

Although the actual economic housing market is substantially larger than the limits of the City of Santa Clara, the City's primary responsibility, according to state planning law, is "for the housing needs of all economic segments of the community." This concept of community has two aspects. First and most important, it refers to the existing residents of the City who may be faced with problems of overcrowding, housing cost too high for their income, lack of plumbing or a deteriorating neighborhood. For this reason a major part of the housing element is a determination of how well the existing units and new construction satisfied the local household demand. The second aspect of concern is for those who work in the City and would like to live near their place of employment.

The basic components of market demand are total number of households, their size and incomes.

HOUSEHOLD SIZE, CITY OF SANTA CLARA
1970 CENSUS

<u>Household Size</u>	<u>Number of Households</u>	<u>% of Total</u>
1 person	4,146	15.6
2	7,201	27.1
3	4,915	18.5
4	4,841	18.2
5	2,914	11.0
6	1,450	5.5
7	629	2.4
8+	379	1.8
Total Households	26,566	
Average Size	3.18 persons per household	

V. Elements of the Plan
 C. Housing

DISTRIBUTION OF FAMILY INCOME, CITY & COUNTY OF SANTA CLARA
 1970 CENSUS

<u>Income</u>	<u>Percent of City Total</u>	<u>Comparable County Figures</u>
Under \$1,000	1.2%	1.5%
\$1,000-1,999	1.7%	1.5%
\$2,000-2,999	2.3%	2.2%
\$3,000-3,999	2.6%	2.6%
\$4,000-4,999	3.3%	3.0%
\$5,000-5,999	3.6%	3.3%
\$6,000-7,999	9.5%	8.8%
\$8,000-9,999	11.3%	11.2%
\$10,000-14,999	34.0%	30.9%
\$15,000-24,999	26.5%	27.7%
Over \$25,000	3.8%	7.2%
Average Family Income	\$12,135	

HOUSEHOLD TENURE, CITY OF SANTA CLARA
 1970 CENSUS

<u>Tenure</u>	<u>Number of Households</u>	<u>% of Total</u>
Owned	14,789	55.7
Rented	11,777	44.3

V. Elements of the Plan
C. Housing

These figures indicate that the general characteristics of the City's households do not seem to be out of the ordinary; income above average, household size about average and percentage of homeowners just below average. Housing problems, however, are concentrated in the extremes of any population statistics; minorities, the poorest, the largest, and the oldest. It is necessary to examine these segments of the population in relation to the housing market before an accurate assessment of Santa Clara's housing situation can be made.

The largest portion of the population that is disadvantaged in the housing market is that with low and moderate income. The 1970 Census found almost 7% of the City's households had an income of less than \$4,000. According to standard housing cost figures, an income of \$4,000 can only afford to buy a \$10,000 house or rent an apartment for \$80 a month. In order to pay more, such a household has to spend more than a fourth of its income on housing which means that other important budget items like food, clothing, or schooling will be shortchanged. Households in this income range are normally eligible for welfare and/or food stamps which increase their buying power.

Even in the moderate income range, the amount of money available for housing is often inadequate and must be supplemented by sacrificing other needed items. For example, a household with \$7,000 income can reasonably afford only a \$17,000 house or a \$140 monthly rental.

Many of the housing problems of the poor are also faced by minority households. Minorities constitute over 20% of the City's total population. The 1970 Census indicates that Negroes are 0.8% and other races (primarily Oriental and American Indian) comprise another 3.8%. The Spanish surname and Spanish language minority is larger, 18% in 1970.

The distribution of minority population is another important aspect of the housing situation. In the City of Santa Clara, the 1970 Census found that seven of the eleven census tracts were substantially different from their expected minority percentage if distributed evenly throughout the City.

Tracts 50, 52, 56, and 60 have a significantly higher proportion of the City's minority residents than of the total City population. Tracts 59 and 61 each have approximately half of the expected minority population. These tracts are located in the southern section of the City and were the latest to develop with the highest housing costs.

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 C. Housing

MINORITY LOCATION, CITY OF SANTA CLARA
 1970 CENSUS

<u>Tract</u>	<u>Negro Population as % of Tract</u>	<u>Spanish Surname as % of Tract</u>
50	3.2	22.7
52	1.7	28.3
53	0.5	18.4
54	0.4	18.3
55	0.1	23.0
56	0.5	32.3
57	0.4	18.9
58	0.4	12.0
59	0.1	9.6
60	0.2	26.2
61	0.3	11.0

The elderly, comprising 5% of the population, are another segment of the population that are often disadvantaged in the existing housing market. People over 65 are generally retired and living on a fixed income of social security and other benefits. The major problem is the low level of these benefits which place the person in the low income category with all the accompanying difficulties. This disadvantage is compounded by the present rate of inflation which steadily reduces the buying power of what little income is available. Physical problems arise from the inability of some elderly people to adequately maintain their homes. Particularly in older units where repairs are regularly needed, elderly residents may find their homes rapidly becoming deteriorated.

Large households can also encounter difficulty in finding suitable housing in markets where only smaller units are available. The City's average household size, 3.18, however, is a substantial drop from the 1960 figure of 3.57. This has important implications for the present housing market since much of the existing housing stock was built to accommodate the influx of larger families during the City's rapid expansion. As these families matured and the national trend towards smaller families developed, the number of large families declined to the available larger units. The

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continued dominance of new housing by multiple units emphasizes the need to preserve as many existing single family houses as possible for large households.

The rising interest rate on mortgages has become a restricting factor on current homeowners' mobility. High monthly payments on new mortgages have caused many residents to remain in their current homes even if not suitable to their current needs. As a result, families in larger homes whose children have left are not moving to smaller quarters. These larger units are not becoming available to younger, growing families and the total fit between units and households is further distorted.

V. Elements of the Plan
C. Housing

4. PROBLEMS

A. 1970 Housing Needs

Using 1970 Census information, an estimate of the number of households in the City of Santa Clara with inadequate living conditions has been made. Inadequate conditions are defined as: 1) units lacking some or all plumbing, and/or 2) households with more than 1.25 persons per room, and/or 3a) tenant households paying more than 25% of their income for rent or 3b) owner households occupying housing more than 30 years old and valued at less than \$10,000. This tabulation indicates a total of 592 owner households and 5,247 renter households having one or more of these inadequate living conditions. The distribution of these households is shown in the following table.

Less than 200 of these households are living in substandard units. Most are renters paying more than 25% of their income for rent. In some cases, paying this much is a voluntary burden assumed by households placing great value on quality housing.

V. Elements of the Plan
 C. Housing

NUMBER OF HOUSEHOLDS HAVING
 INADEQUATE LIVING CONDITIONS
 (1970 Census)

OWNER	HOUSEHOLD SIZE					TOTAL
	1	2	3 or 4	5	6+	
0 - \$2,000	27	10	6	-	5	48
\$2,000 - 2,999	-	-	-	-	-	-
\$3,000 - 4,999	6	5	-	-	8	19
\$5,000 - 7,499	-	-	5	-	20	25
\$7,500 - 9,999	-	5	5	6	63	79
\$10,000 - 14,999	-	12	30	22	161	225
\$15,000 - 19,999	6	-	13	-	67	86
\$20,000+	-	-	43	-	67	110
TOTAL	39	32	102	28	391	592

RENTER	HOUSEHOLD SIZE					TOTAL
	1	2	3 or 4	5	6+	
0 - \$2,000	588	227	99	15	9	938
\$2,000 - 2,999	362	191	114	6	24	697
\$3,000 - 4,999	478	413	318	55	24	1288
\$5,000 - 7,499	370	439	668	53	44	1574
\$7,500 - 9,999	63	134	173	43	51	464
\$10,000 - 14,999	6	46	94	16	71	233
\$15,000 - 19,999	-	4	5	-	22	31
\$20,000+	-	-	12	-	10	22
TOTAL	1867	1454	1483	188	255	5247

V. Elements of the Plan
C. Housing

B. Rising Housing Costs

All current market trends indicate that the existing shortage of housing priced for low and moderate income families will worsen. Each of the components of a dwelling unit's--cost, land, construction, and financing--are rising faster than income levels. The result is that the cost of new housing is considerably higher than the average cost of existing units and beyond the means of most residents. In addition, appreciation of existing units has been substantial and has had the greatest effect on houses that were valued below \$15,000 in 1960. The hope of the early 1970's, that the townhouse developments would provide a new source of moderate income housing, has not been borne out, at least in Santa Clara. New townhouses currently sell for more than \$35,000.

C. Residential Land Shortage

Another major obstacle to expansion of the housing supply in the City is the approaching complete development of available residential land. The ultimate boundaries of the City, as well as the allocation of basic land uses, has strictly limited potential residential sites. Except for a few isolated parcels, the area south of the railroad is fully developed. The land between the railroad and the Bayshore Freeway is committed to industrial use. North of the freeway, the land use pattern is more complicated. The Marriott development and West Valley College involve nearly 700 acres of land and the City-owned properties are an additional 500 acres. Some 130 acres of land in the Agnew Village area that had originally been designated for residential use has been changed to industrial because of the noise impact of the San Jose Municipal Airport.

As a result of these factors, the total vacant residential land remaining in the City is less than 100 acres. Not only does this shortage increase the cost of the remaining land, but it also limits the City's ability to influence the future housing supply and, particularly, to correct any imbalances between supply and demand. Even with significant conversion of single-family areas to higher density, it is not likely that more than 3000 additional dwelling units will be constructed prior to 1990.

V. Elements of the Plan
C. Housing

D. Maintenance of Residential Units

Although most of Santa Clara's housing has been built since World War II, a large portion of these units were constructed in the early 1950's at a low cost. Already, one-third of these units are at least 20 years old. By 1980, over half of today's units will be 20 years or older.

As housing units age, maintenance requirements increase and become more crucial. Unless regular investment in upkeep is made, housing can experience a drop in condition and value. The effects of this decline are not limited to the individual structure but can effect surrounding properties. If nearby owners also decide that further maintenance is not a worthwhile investment, the process can accelerate and effect the image of the entire neighborhood.

Santa Clara has been fortunate that its desirability as a place to live has encouraged residential maintenance in most areas. However, in the Old Quad and Agnew Village, and individual units among the newer housing, dwelling units have begun to deteriorate. This decline can threaten both the individual health and safety of the occupants and the appearance of the neighborhood.

E. Conversions to Higher Density Residential Use

As employment in the City and the population of the metropolitan area continue to expand, pressure for more housing in the City will also grow. This pressure causes land costs to increase, making it more feasible to purchase and demolish old houses in the downtown area for new development to higher densities. This process of private redevelopment is encouraged in some areas of the Old Quad as a means of revitalizing the area. In other areas of older housing, it will not be permitted. In 1970, the Old Quad contained 57% of the single family homes valued at less than \$10,000, and 52% of the units that rented for less than \$80 a month. The removal of a large number of these units will eliminate much of the low cost housing that now exists in the City. In addition, this private redevelopment would have adverse effects on one of the few neighborhoods in the City which is unique in terms of its architectural and historical significance.

Demolitions of low cost housing also occur through public actions. The housing inspection program insures that the Housing Code and health standards are maintained within the

V. Elements of the Plan
C. Housing

City. When a unit falls beyond repair, the Code requires demolition. In the City of Santa Clara, an aggressive program has already eliminated the worst housing and the present effort is concentrated on maintaining the upkeep of older units.

Demolitions due to public improvements could be a more serious problem since they are not related to the condition of a unit. Eminent domain proceedings against the low cost but standard housing puts a great burden on the occupants. In addition to the costs involved in moving, the shortage of comparable units in the City means that the household must pay a higher percentage of its income for housing or move out of the City to find similarly priced shelter. Few demolitions due to public improvements are expected in the future.

Another effect of the increasing demand for and cost of housing may be illegal conversions of unused garages and bedrooms in single family homes into second rental units. Widespread conversions of this sort could adversely change the character of a single family area.

To summarize, the obstacles that stand in the way of an effective housing market in the City of Santa Clara are:

1. The combination of households with low and moderate incomes and the inability of the private housing industry to supply units at a low cost;
2. The limited amount of open residential land;
3. The potential for residential decline as large amounts of dwelling units pass 20 years in age; and
4. The prospect that future demolitions will reduce the already short supply of lower cost housing.

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C. Housing

HOUSING POLICIES AND PRINCIPLES

As the basis for all subsequent policies, decisions and actions concerning housing, the City of Santa Clara establishes the following housing policies and principles:

1. To ensure the provision of decent housing for all residents regardless of age, income, race or ethnic background.

a. To increase the ability of persons and families to meet their housing needs in the housing market.

b. To facilitate the provision of safe, sanitary, standard housing to accommodate a fair proportion of persons and families disadvantaged in the housing market.

c. To stimulate housing construction consistent with the holding capacity established in the General Plan.

2. To ensure the provision of a variety of individual choices of housing tenure, type and location.

a. To facilitate the operation of the housing market so that suppliers and consumers can function more effectively.

3. To establish, maintain and enhance the character, quality and liveability of residential areas.

a. To eliminate housing deficiencies and prevent future blight through conservation, construction, rehabilitation and removal.

b. To encourage a full range of housing and employment opportunities, open space and adequate transportation facilities throughout all communities in the urban area of the County.

V. Elements of the Plan
C. Housing

HOUSING PROGRAM

1. Increase the supply of subsidized units for low and moderate income families and individuals.

The major objective of the City's Housing Assistance Plan, adopted as part of the Community Development Program, is to implement the Federal government's Section 8 Housing Assistance Program. The County of Santa Clara Housing Authority, acting for the City of Santa Clara, has applied for and received approval for the funds necessary to subsidize rental units within the City. These units would be available to families, individuals, and elderly persons who meet the income criteria. Under the Section 8 program, tenants would not have to pay more than 25% of their income for monthly rent.

Another aspect of the Community Development Program is a project to provide sites and improvements for subsidized housing. This project would make available sites and/or improvements at a reduced cost for qualified developers of subsidized housing.

2. Rehabilitation of substandard dwellings.

The Community Development Program has a program of rehabilitating substandard housing units. It is making available low interest loans to owners of substandard units with low or moderate incomes. The City is also providing counselling assistance for higher income owners in obtaining favorable home improvement loans and selecting contractors.

3. Conservation of older homes.

The Community Development plan has also allocated monies for the maintenance and minor repairs of older housing within the City. This money will be available as grants or free materials and labor and is primarily directed at the elderly and handicapped who are physically and financially unable to adequately maintain their homes. The conservation monies would also be available to use in combination with rehabilitation loans to reduce the total amount of the loan and provide incentives for owners of substandard property to participate in the rehabilitation program.

V. Elements of the Plan

C. Housing

4. Inspection program.

In order to ensure maintenance of the housing stock as it ages, a systematic housing inspection program is proposed that will parallel the existing inspection of apartments. The objective is to identify and correct Housing Code deficiencies in single family areas. Because of limited manpower, inspection would be infrequent. However, the frequency is not as important as the certainty of eventual inspection. As a supplement, the City will encourage inspections and conformance to the Code at the time of transfer of title and on a complaint basis. The standard inspection fee would be charged so that the program would be self-supporting. This would prevent the cost of Code compliance from being passed to succeeding owners.

5. Relocation Assistance for households displaced by public works.

The City currently has a program which complies with State law in providing relocation assistance and payments for displaced persons. Under this program, the City of Santa Clara will pay moving expenses and enable low and moderate income families to obtain comparable standard housing at a reasonable cost. Funds for this program are budgeted as part of the project that creates the need for relocation.

6. Preservation of historic homes.

The City of Santa Clara has adopted an historic zone district which provides incentives for the preservation of historical homes and places architectural and demolition restrictions on such property. In addition, the City's Historical and Landmarks Commission has a program of identifying and placing plaques in front of landmark properties within the City.

7. Increased densities where appropriate in the Old Quad.

Because of the limited amount of undeveloped residential land left in Santa Clara, additional housing units will be possible only through increased densities in areas of existing single family homes. Portions of the City's Old Quad have been identified in the General Plan as suitable areas in which to allow this conversion to higher densities. The characteristics of these new units should be carefully monitored by the City and influenced where possible to avoid imbalances in the housing supply. Also, the gradual renewal of these portions of the Old Quad should be done so as to maintain the

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C. Housing

proper economic mix of households. Multi-family units should be built for a wide range of housing costs and located so as not to adversely effect the areas of continuing single family use.

8. Recommended State and Federal programs.

Some of the most important influences on the local housing market come from the national and state levels, particularly in regard to the credit situation and provision of subsidized housing. As part of its program for improved housing, the City of Santa Clara will utilize Federal and State programs that support and extend the City's housing goals.

9. Housing Development Corporation.

Since the vast majority of housing units are produced and marketed by the private sector, Santa Clara encourages the establishment of a private housing development corporation and revolving fund to: a) construct low and moderate income housing; b) provide technical services and seed money loans for housing construction; c) serve as a land bank for low and moderate income housing sites.

PUBLIC FACILITIES



V. Elements of the Plan
D. Public Facilities

VD PUBLIC FACILITIES

I. EDUCATION

Santa Clara has an extensive public education system composed of 19 elementary, 3 intermediate and 3 high schools within the City limits. Distribution of the schools in relation to residential areas is good, minimizing commuting distance for the students. Most homes are within 1/3 of a mile of an elementary school, 3/4 of a mile of an intermediate school and one mile of a high school. Only the Agnew area is without an intermediate or high school within walking distance.

All of the schools have adjacent recreation areas and generally meet the following acreage standards: elementary, 10 acres; intermediate, 25 acres; high school, 40 acres. Each elementary school has between 500 and 750 students, each intermediate has between 800 and 1000 students, and the high schools have between 1500 and 1900 students each. Total enrollment growth has stabilized enough so that no new schools are presently planned.

Racial balances are such that a continuation of the neighborhood school concept is anticipated. The neighborhood orientation encourages optimum use of school facilities for local activities like Little League and neighborhood meetings. The policy of the Santa Clara Unified School District is to permit use of their facilities by other groups when not required for educational purposes. Square dancing, adult league basketball and lectures are customary uses.

A Metropolitan Adult Education Program is operated by the school districts in the central Santa Clara County area. Through joint use of facilities, the Program offers a wide range of courses including English and second languages, high school equivalency, vocational advancement and recreation.

The City has a prestigious institution of higher learning in the University of Santa Clara. Its history has been closely linked with that of the City and occupies a prominent site in the center of the downtown area. The Old Quad Development Plan accommodates a gradual expansion of the campus north to Benton Street and a continued integration of campus and City activities.

A second local college is planned by the West Valley College on a 160 acre site just north of the Bayshore Freeway. At full development, this campus is planned to serve 10,000 commuting students. An interim campus is operating on Monroe Street at Lawrence Expressway using a vacated Intermediate school.

PUBLIC SCHOOLS

RESIDENTIAL AREA



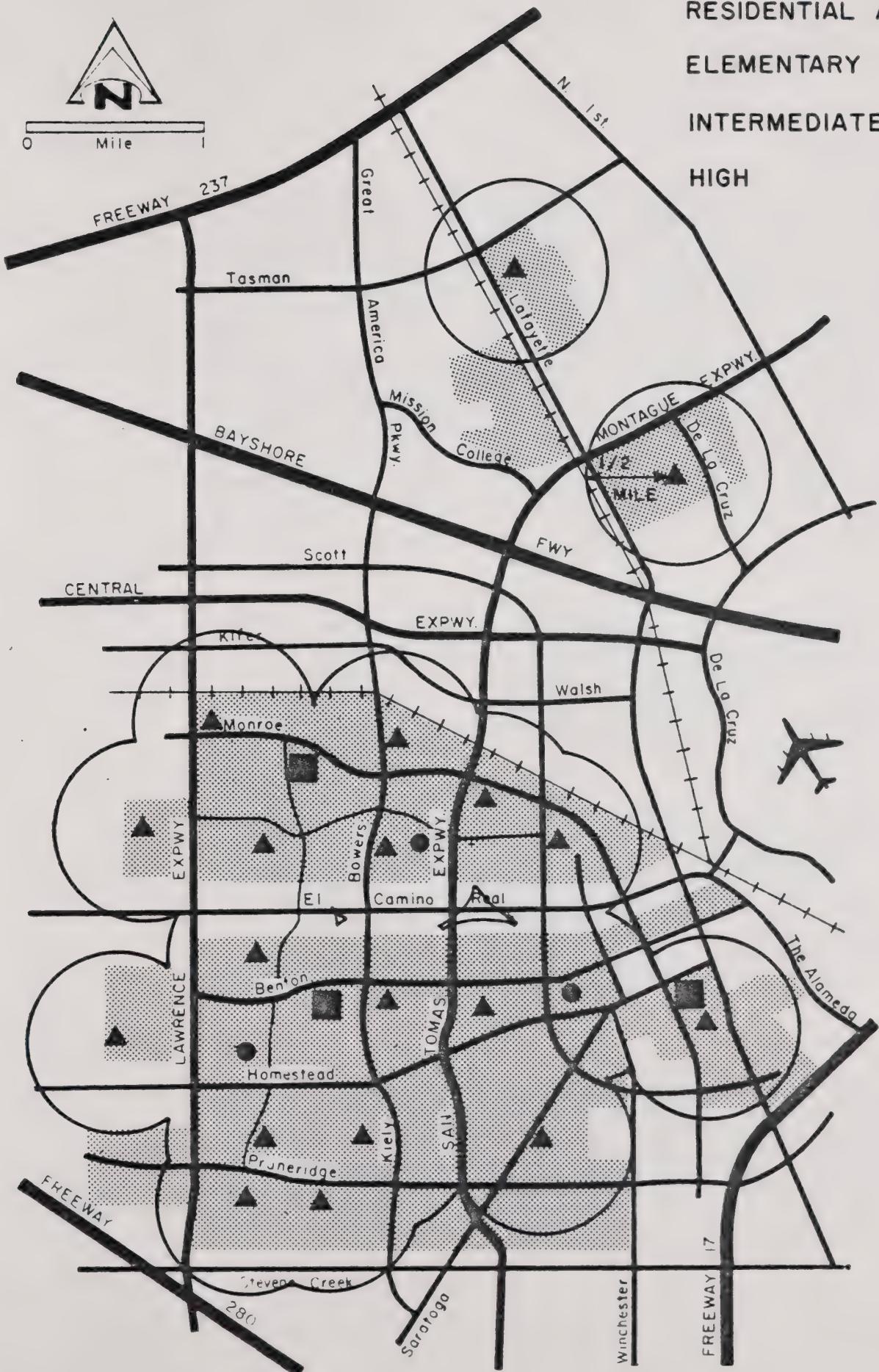
ELEMENTARY



INTERMEDIATE



HIGH



V. Elements of the Plan
D. Public Facilities

2. ADMINISTRATION

The administrative facilities of the City are centralized in a Mission style civic center that includes a city hall and police administration building. The city hall was completed in 1965 with sufficient space to house the administrative function of the City through 1990. Space for future expansion is now rented to the County Social Services Department.

The Fire Department operates eight fire stations in the City and can respond in less than five minutes to any fire or emergency within the City. The excellence of fire protection in Santa Clara has enabled the City to obtain a Class III insurance rating. The Department has plans for an additional fire station in the developing industrial area west of the San Tomas Expressway and south of the Bayshore Freeway.

3. CULTURAL

Serving both education and recreation needs, the Central Library has a 200,000 volume capacity and a computerized circulation system. The Mission Branch Library continues to serve the Old Quad. Two other branch libraries are part of the ten-year capital improvement program, one in the Agnew area and one in the northwest residential section.

Recently Santa Clara added significant facilities to its supply of cultural space. The University of Santa Clara constructed the Mayer Theatre with a professional quality stage to house University productions. The Community Recreation Center, located in Central Park, includes a multi-purpose room with stage in addition to specialized instruction space for many crafts. The City also supports the Triton Museum of Art, which provides gallery room for exhibitions and related functions.

4. PUBLIC UTILITIES

The City of Santa Clara is in the unusual position of owning most of the utilities that serve the City. This has distinct advantages for residents and users both in terms of lower costs and the ability to tailor service to user needs. The City has recently completed maintenance and storage facilities on Walsh Avenue that will meet the needs of all the utility departments through 1990.

V. Elements of the Plan
D. Public Facilities

A. Water

Eighty percent of the local water supply comes from underground sources tapped by wells (see Conservation Element). In the past, demands on this source have lowered the water table. Although this problem has been stabilized, future increases in water needs cannot be met from existing underground water. In the early 1970's, the total water demands of the County began to exceed the local water supply. To satisfy this demand, the Water District imports water from South Bay Aqueduct of the State Water project. Santa Clara purchases water from the Water District and Hetch-Hetchy Aqueduct, which passes through the County.

Even with these sources of imported water, the expected growth within Santa Clara County will create a substantial deficit of water as early as 1980. Alternative methods to meet this deficit include a limitation on population and industrial growth, reduction of water needs through conservation, increased importation and reclamation of waste water. The proposed San Felipe project would provide an additional source of imported water from northern California through the San Luis Reservoir. The City supports this project and water conservation as the long term solution to the water needs.

B. Energy

The City's Electric Department operates a network of substations and distribution lines to supply local power needs. Electricity is purchased from Federal power sources at substantially lower cost than otherwise possible. These sources are not unlimited, however, and the City has taken a leading position in the search for alternate methods of public power generation.

Through the Northern California Power Agency, the City has been exploring ownership possibilities in thermal and hydroelectric production. An experimental solar heating and cooling system has been installed in the City's new Community Recreation Center to become a model for other public buildings.

In addition, the concept of using solar energy as a utility is being tested. The City buys and installs a solar heating system in homes and swimming pools whose owners then make monthly payments to the City to cover the cost.

V. Elements of the Plan
D. Public Facilities

C. Solid Waste

Solid waste disposal is another public service that has become critical because of the rapid growth of the metropolitan area. Past disposal practices like dumping and open burning have been halted due to the resulting air and water pollution and the lack of suitable sites. Santa Clara has planned for its future disposal needs through the acquisition of several hundred acres of low-lying land in the north end of the City. This engineered sanitary landfill site can accommodate the non-toxic solid wastes of the City for approximately 25 years.

D. Sewage Treatment

In cooperation with San Jose and neighboring sanitation districts, Santa Clara operates a sewage treatment plant near Alviso. Since effluent from this plant is discharged into the Bay, it is essential that it be of the highest possible quality. The San Jose-Santa Clara plant has made several major improvements and now removes about 90% of all impurities through its secondary treatment process. The plant has also been expanded recently from its original capacity of 94 million gallons per day to 164 million gallons per day. Future standards will be even more stringent and studies are now in process that will result in an additional level of treatment.

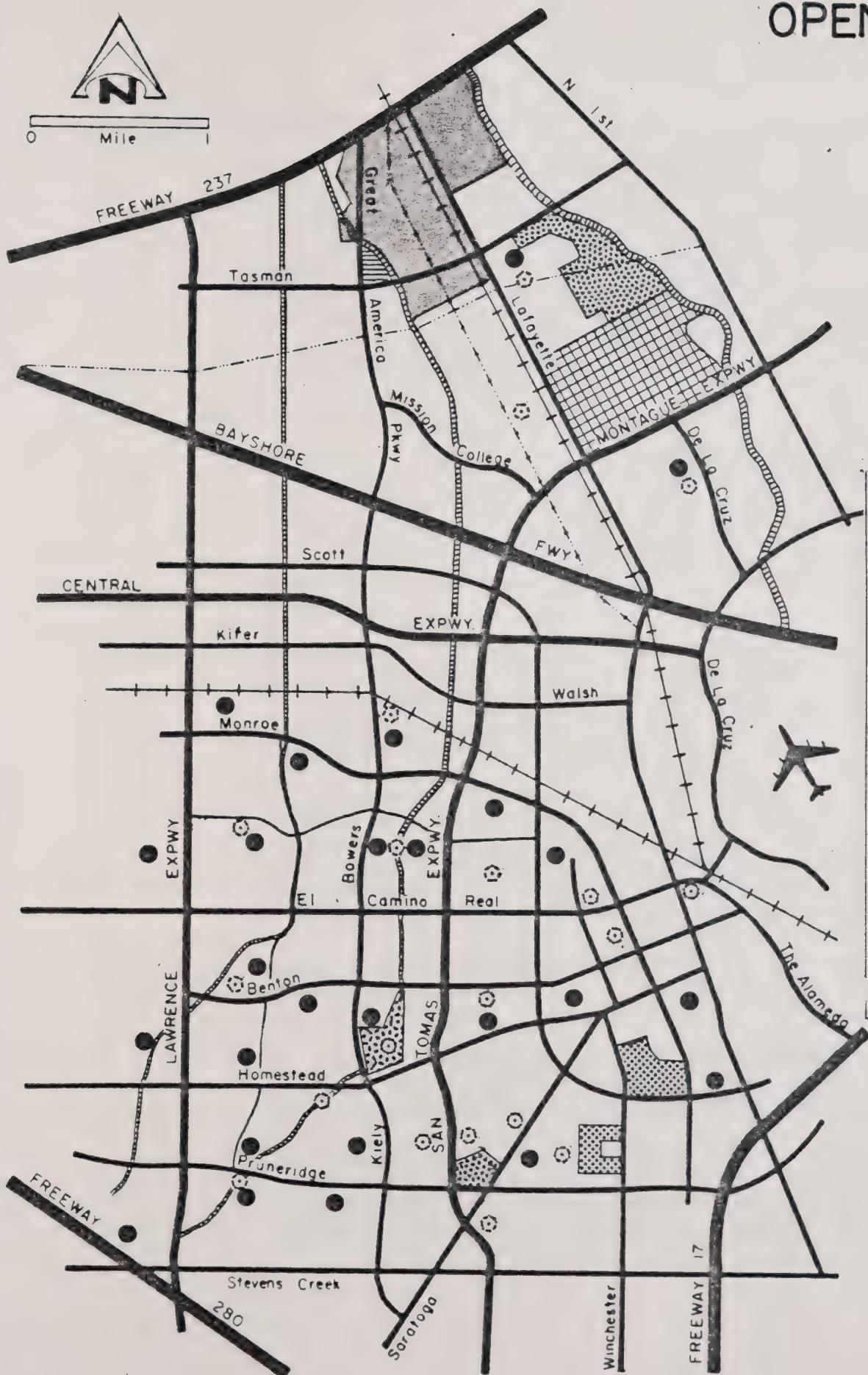
In general, Santa Clara can expect the high standards of utility service to be maintained and improved during the next twenty years.

V. Elements of the Plan
D. Public Facilities

PUBLIC FACILITIES POLICIES

1. Continue an innovative energy program to develop new power sources and encourage conservation.
2. Maintain the high level of effluent quality from the San Jose-Santa Clara Water Pollution Control Facility.

OPEN SPACE



-  — PARKS
 -  — GOLF COURSES
 -  — CEMETERIES
 -  — SANITARY LANDFILL
 -  — AGNEW HOSPITAL
 -  — SCHOOLS
 -  — HETCH HETCHY
RIGHT of WAY
 -  — P.G & E
RIGHT of WAY
 -  — MUNICIPAL
UNDEVELOPED
 -  — FLOOD
CONTROL

V. Elements of the Plan
E. Open Space, Recreation and Conservation

VE OPEN SPACE, RECREATION AND CONSERVATION

The rapid urbanization of the Santa Clara Valley has absorbed much of the undeveloped land in the City and greatly effected the natural environment. This General Plan projects a future when there will be no remaining agricultural land remaining in Santa Clara. Whatever open land the residents of the future are going to have must be conserved through deliberate government action. In the same way, the quality of the environment can no longer be left to chance but must become a concern of every governmental agency.

1. OPEN SPACE AND RECREATION

The City of Santa Clara has a very active Department of Parks and Recreation that has made maximum use of its available funds. There are presently 23 parks in the City, the largest being the 52 acre Central Park. The rest are neighborhood parks evenly distributed throughout the residential areas. The accompanying list describes the City park system and its facilities.

The small size of many of the City's older parks is compensated for by their convenient locations and degree of development. The majority of local residents are within an easy walk of at least one neighborhood park with typical facilities of a tot lot, open area for games, and picnic tables.

The Department of Parks and Recreation also maintains a strong recreation program that supports a wide variety of activities ranging from a Senior Citizens Center to the International Swim Center, training site for Olympic swimmers and divers. Through programs like Little League, Pop Warner football, tennis, and swimming, the recreation facilities are kept in constant use by all segments of the City population. In recognition of its parks system and program, the Department received a 1971 Environmental Planning Award from the California Parks and Recreation Society.

In 1975, the City formed a Sports and Open Space Authority that acquired Fairway Glen, a 104-acre, 18-hole golf course, now operated as a public course supported by user fees.

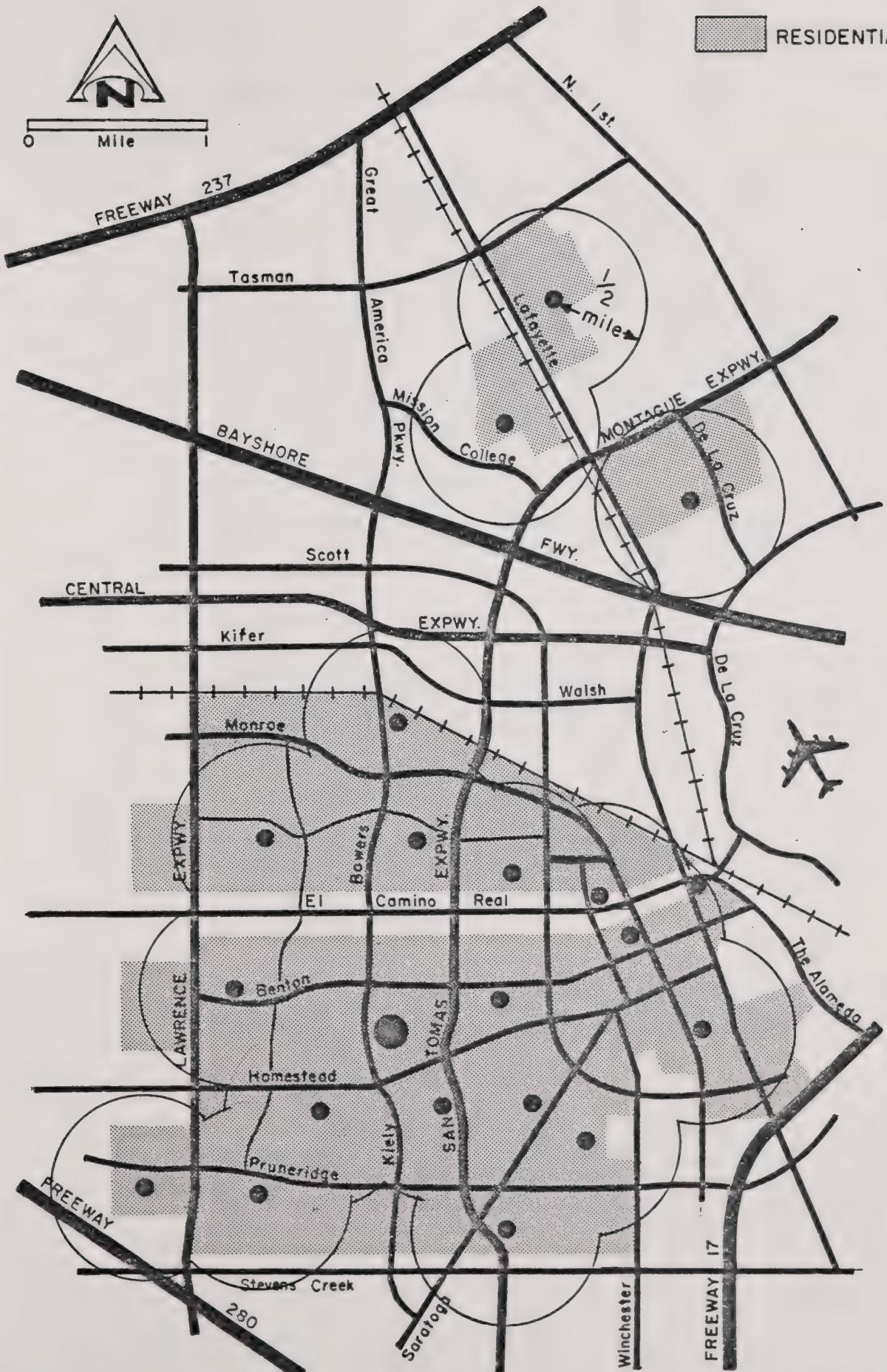
The City system is augmented by the facilities of the local school districts. Almost all of the elementary schools provide, as a minimum, space for a softball field, two basketball and two volleyball courts, and a grass playground for free play on

V. Elements of the Plan

E. Open Space, Recreation and Conservation

a ten-acre site. The elementary school playgrounds are never locked. Intermediate schools have at least one baseball and one football field, 8-10 basketball courts and a large gym. The high schools all have a full plant with a swimming pool, a gym seating 1500, tennis and basketball courts, and an auditorium with stage and seating for 700. All of these facilities are available to the City recreation program and private groups when not needed by the school district.

PARKS



V. Elements of the Plan
E. Open Space, Recreation and Conservation

Parks and Recreation Department Facilities:

1. Central Park

A centrally located 52-acre facility on Saratoga Creek between Homestead Road and Benton Street includes: a) picnic facilities for large and small groups, b) children's play area, c) ten lighted tennis courts, d) one lighted baseball field with stands for 2640 and lighted softball field, e) soccer field and open grass area, f) Olympic Swim Center with 50 meter Olympic pool, diving tower, locker rooms and control center, g) Parks Division Service Center on Benton Street, h) Community Recreation Center with 500-seat auditorium and separate rooms for arts and crafts (This building utilizes an experimental solar roof for heating and cooling.).

2. Steve Carli Park

A small two-acre park adjacent to Haman Elementary School; has a tiny tot area, Little League stadium, restroom facilities, activity areas.

3. Warburton Park

This is a six-acre facility with swimming pools, group and individual barbecue facilities, small children's playground, off-street parking, open play areas. (Total of ten picnic tables.)

4. Everett Alvarez Park

A small one-acre park site shaped as a "bowl"; principally for smaller children in the area, with emphasis on small children's apparatus. Restrooms, barbecue-picnic facilities.

5. Lafayette Park

Has one of the four night-lighted softball facilities in the community, two tennis courts, large open play area for softball, baseball, football. Restroom facilities.

6. Bowers Park

A seven-acre facility located adjacent to Bowers Elementary School and Cabrillo Intermediate School. As a neighborhood recreation building for meetings, recreation activities, etc. Has a small children's play area, large open spaces for active games. Picnic-barbecue facilities (eight picnic tables).

7. Machado Park

Has a neighborhood recreation building, small children's play area, Little League stadium, barbecue picnic facilities. This $3\frac{1}{2}$ acre park is located adjacent to Briarwood Elementary School. (Six picnic tables.)

8. Homestead Park

This $10\frac{1}{2}$ acre park site is developed with Little League field, tennis courts, small children's play area, off-street parking, and landscaping.

9. Westwood Oaks Park

A small one-acre facility located west of Lawrence Expressway. Has a neighborhood recreation building, small children's play area, some open space, minimal picnic-barbecue facilities. Has a spray pool which is used under supervision.

10. Maywood Park

A $9\frac{1}{2}$ acre facility located adjacent to Eisenhower School. Has a small children's play area, neighborhood recreation building, two night-lighted tennis courts, off-street parking, picnic-barbecue facilities (eight tables).

11. Mary Gomez Park

An eight-acre park. Has a swimming pool, two tennis courts (not lighted), small children's play area, off-street parking, open play area for pick-up softball games. Picnic-barbecue facilities (nine tables).

12. City Plaza Park

More commonly referred to as the Mission Branch Library. Several picnic tables are located on the grounds.

13. Bracher Park

A $3\frac{1}{2}$ acre park site with large turfed area, tot lot, lighted activity area and picnic facilities.

V. Elements of the Plan
E. Open Space, Recreation and Conservation

14. Homeridge Park

A six-acre parcel with restroom facilities, a small children's play area, large group picnic-barbecue facilities which will accommodate 300 people at one time, off-street parking; particularly fitting for youth groups, nature activities as it has a fire circle for singing, storytelling, etc.

15. Civic Center Park

A three-acre park fronting on El Camino Real immediately in front of the Police Administration Building. Beautifully landscaped with colorful flower beds, a large reflective pool, the site of the Statue of Saint Clare, the City's namesake.

16. Washington Park

Night-lighted baseball and softball field. This facility, which immediately adjoins the Santa Clara High School, actually is owned by the high school. War Memorial Swimming Pool, Elmer Johnson Softball Field, Townsend Football Field, and tennis courts belonging to Santa Clara High School are all located in the immediate area.

17. Memorial Park

This is the site of the second mission established in the City of Santa Clara by the Franciscan fathers. Santa Clara Lions Club donated the large granite cross and the area is landscaped with particular emphasis on early mission day horticulture. Sitting areas are an excellent place for industry workers to eat lunch and relax.

18. Montague Park

A $5\frac{1}{2}$ acre site. Improvements include a neighborhood recreation building with large multi-purpose room, restroom and storage building, tennis courts, small children's play area, a softball area, and picnic-barbecue facilities. There is also a swimming pool with attendant facilities.

19. Henry Schmidt Park

An eight-acre park with a jogging and exercise path, tennis courts, softball area, tot lot and picnic area.

20. Parkway Park

A $3\frac{1}{2}$ acre parcel with a jogging and exercise path, softball area, tot lot and picnic area.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

21. Rotary Park

A small children's tot lot complete with play apparatus, picnic tables, sitting area and landscaping.

22. Fremont Park

A small neighborhood park located on the former Fremont Elementary School site. Equipped with slides, swings, climbers and other small children's play apparatus. Has picnic tables and trees for shade.

23. Agnew Park

A two-acre park developed as a neighborhood park with lighted tennis courts, children's play area, restrooms, storage area, barbecue-picnic facilities and open turfed area.

24. Primavera Park

A four-acre park site adjacent to the Kathryn Hughes School.

TOTAL ACREAGE OF ALL PARKS - 144 acres

The inventory of local open and recreation space also includes a number of private facilities. Pruneridge Farms is a nine-hole golf course with a driving range. Several neighborhoods have built small, private swim clubs. Another major recreational and open space resource is in the newer apartment and townhouse developments. The Zoning Ordinance requires that at least 35% of a multiple unit parcel be devoted to landscaping. Most of the recent developments have also included a swimming pool and recreation building as a market attraction. Even though restricted to a project's residents, these can reduce the user load on equivalent City facilities.

Marriott's Great America Theme Park is also a significant private recreation facility for the entire region. Its 80 acres of presentations, rides and exhibits are expected to attract over two million visitors a year.

Inventory of Open Space:

A. Parks	140 acres
B. Schools (60% developed)	675 acres
C. Landfill	443 acres
D. Municipal Undeveloped	45 acres
E. Flood Control	324 acres
1) Water District - 295 acres	
2) City - 29 acres	
F. Utility Rights-of-way	47 acres
1) Hetch-Hetchy Aquaduct - 24 acres	
2) PG&E power line - 23 acres	
G. Agnew Hospital (50% developed)	300 acres
H. Golf Courses	144 acres
1) Fairway Glen - 104 acres	
2) Pruneridge Farms - 40 acres	
I. Cemeteries	88 acres
1) Mission City - 30 acres	
2) Catholic - 58 acres	
	2206 acres

Santa Clara County also operates a system of regional parks that are open to local residents. There are, however, no County parks in the immediate vicinity of the City of Santa Clara. In the long range plan for regional parks, the County has included a Saratoga Creek park chain that would run through the residential area of Santa Clara and another park chain along the Guadalupe River. The undeveloped County Baylands Park is to be located in Sunnyvale to the northwest of the City.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

There are two major factors that will determine the amount of open space that Santa Clara can preserve: available land and available funds.

The residential area of the City south of the Southern Pacific Railroad is almost all developed. The few remaining parcels are so high priced that acquisition costs for park purposes are prohibitive. The undeveloped land north of the Bayshore is unsuitable for neighborhood parks due to the distance involved. With good access, however, it is suitable for specialized or larger scale open space and recreation to which users would normally travel.

Money available for park acquisition has been limited by the financial problems facing all cities. Santa Clara will need determination to make further open space purchases. Fortunately, the City already owns two large tracts on either side of Lafayette Street at the northern end. Both of these sites have excellent potential as open space areas and could be used to satisfy future recreation demands without further land acquisition. Portions of this land are already in use by the Police Activities League for a motorcycle course.

The City's retention basins also have potential for enhancement through landscaping and, because of their location adjacent to the Baylands, could become a feeding and resting place for birds.

Recreation space for major sports events is available at the University of Santa Clara's Buck Shaw Stadium and the new inflated roof Student Activities Center. The future Mission College will also have spectator facilities at its track and football field.

The possibility of a major public arena still exists for development in the area of Marriott's Great America Theme Park.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

2. CONSERVATION

Although the climate and soil of the area played a major role in Santa Clara's early settlement and growth, the present character and assets of the City are largely man-made. The land under Santa Clara is an alluvial plain formed by silt deposits left by rivers running from the surrounding mountains to the San Francisco Bay. As a result of this process, the topography of the City is very level and there are no significant mineral resources.

Urbanization of the Valley has resulted in irreversible changes, including loss of native vegetation and wildlife, new water drainage patterns, and water and air pollution.

A. Vegetation and Wildlife

The existing vegetation of Santa Clara is the product of recent human activity. The original landscape of grass lands and oak trees existed until the arrival of the Spanish in the eighteenth century. The climate, fertility and topography of the Valley encouraged cultivation. Native vegetation was first replaced by grains and later, in the nineteenth century, by extensive orchards. These, in turn, have been removed by the urbanization since World War II. The few remaining orchards are not economically viable because of the high property taxes and surrounding urban development. Implementation of this Plan will replace all agricultural uses in the City with urban uses.

Vegetation associated with urban development in the City is mostly ornamental. The City has a street tree program which provides a tree for each single family lot. The species emphasis in this program has been on smaller trees that do not require extensive maintenance and do not damage sidewalks. These smaller trees, however, do not provide the shade and visual impact of larger varieties.

Trees large enough to create a leaf canopy above streets and parking areas have a substantial impact on the immediate environment. The canopy intercepts a large amount of solar heat during the day. Water vapor given off also absorbs solar radiation and lowers the surrounding temperature. In general, an extensive tree canopy will moderate temperature extremes and winds.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

The natural landscape of the Santa Clara Valley floor did not support a large amount of wildlife. Grassland rodents and predator birds were the major animal groups. As the original vegetation was replaced, the range of wildlife was reduced and is nearly eliminated within this City. Native rodents and birds have been supplanted by species which are more compatible with an urbanized area.

B. Water

The four streams that run through the City--Saratoga, San Tomas, Calabazas and Guadalupe--carry water from the surrounding watershed area to the Bay. Development in the watershed and on the Valley floor has substantially increased the amount of runoff carried by these streams and the damage potential of floods. In 1974, the Federal government identified the flood prone areas of the City (areas subject to a one percent chance of flooding in a year). Although the exact boundaries of this area are debatable, the current designation covers about 4 square miles of the City and 3000 existing residential buildings.

The Santa Clara Valley Water District is responsible for flood control on the streams within Santa Clara. To accommodate the increasing runoff, the District has been widening and straightening the channels and constructing levees. These improvements have changed the character of the streams from natural creeks to flood control channels, often concrete lined.

A second aspect of the flooding problem occurs in low lying land between the stream levees. In Santa Clara, this situation occurs mainly in the area north of the Bayshore Freeway. The City has developed a master drainage plan for this area which will collect local runoff in two retention basins from which it will be pumped over the levees into the streams. Construction of this system is in conjunction with the Bayshore North Redevelopment Project.

Adding to the flood problem in the northernmost portion of Santa Clara is the potential of salt water inundation. This land is below the extreme high tide elevation of the San Francisco Bay (ten feet mean sea level). This problem has been alleviated by raising the levees and the construction of Route 237 as a dike between the Baylands and the City of Santa Clara.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

Water quality within Santa Clara is most critical in relation to San Francisco Bay. All surface waters in the area flow into the Bay which, in the southern portion, has a low capacity to absorb pollutants. Pollutants could enter local waters from three sources--runoff, sewage treatment plant, and landfill areas.

Runoff is the least controlled of the three, travelling freely from streets, parking lots and roofs to the storm drains and into the streams. Only in the Bayshore North area is the runoff collected into basins where cleansing would be possible. Little information is available concerning the quality of local runoff or its effect on the Bay.

In the past, the effluent of the San Jose-Santa Clara Sewage Treatment Plant has had an adverse impact on the Bay. As a result of recent improvements, discharged water now meets the standards for secondary treatment. Improvements to provide tertiary treatment have been funded and completion is scheduled for 1978. Consideration is being given to a proposal to pipe effluent from several plants in the County to a location north of the Dumbarton Bridge where the Bay is deeper and tidal flushing action is more effective.

As a long range alternative to the deep water outfall and in response to the projected shortage of local water, reuse of the waste water is a possibility. Reclamation is not currently sufficient to produce potable water, however, reclaimed water could be used for industrial and irrigation purposes.

Potential contamination by seepage from sanitary landfill was a major issue in the issuance of a permit for the City's expanded landfill operation. The Water Quality Board required special engineering of the site to ensure that the liquid pollutants would be contained within the fill.

The underground water supply of this area is insulated from surface pollution by thick layers of clay which prevent movement between shallow and deep aquifers. Poorly sealed wells, however, can break this barrier and cause contamination. The major problem facing the deep ground waters is the increasing demand for water in the Valley. Withdrawals of water in excess of natural replenishment has caused past drops in the ground water levels. In direct relation to these declines, the ground elevations in the area around the Bay have dropped. This subsidence has been significant, reaching eight feet in the San Jose Airport area.

V. Elements of the Plan
E. Open Space, Recreation and Conservation

Past subsidence has increased the flood hazard in northern Santa Clara and necessitated raising of the channel levees. In order to balance the withdrawal of water with the inflow, the Valley Water District began a program of recharging the ground water basin by constructing percolation ponds and releasing water into stream channels during the dry season. Apparently as a result, land subsidence has stopped since the late 1960's and ground water levels have risen.

C. Air

Air pollution is a severe environmental problem facing the City and most of the Bay Area. Within the Santa Clara Valley, the three factors causing this pollution are topography, climate and urbanization.

The shape of the Bay Area, a level area surrounded by mountains, creates a basin which traps air pollutants. The Valley is like a funnel at the end of this basin which collects and concentrates the smog. Although pollution is generated in the area at a fairly constant rate, the actual level can vary considerably because of the weather. Depending on the wind speed and temperature at various altitudes, air pollution can either be blown away or accumulate close to the ground.

The presence of a temperature inversion is especially conducive to accumulation of pollutants. Inversions are formed when the upper layers of air are warmer than lower layers. If the altitude of the inversion is below the mountains, pollution will be trapped beneath the inversion and between the hills.

The Bay Area Air Pollution Control District has maintained a monitoring station in San Jose since 1963 and recently opened a station in Sunnyvale. The pollutant levels in Santa Clara can be estimated from these records. Overall, the pollution levels have improved in the last ten years although automobile related emissions have not improved as much as those from stationary sources such as factories. In spite of the improvement this area still experiences levels above the state and federal air quality standards.

In 1974, the San Jose station recorded 69 days of excess oxidants, 14 days of excess carbon monoxide and 44 days of excess suspended particulates. The Sunnyvale station recorded 31 days of oxidants, 2 days of carbon monoxide and 9 of suspended particulates.

V. Elements of the Plan

E. Open Space, Recreation and Conservation

Within the Bay Area, automobiles create the vast majority of the smog, contributing 95% of the carbon monoxide, 61% of the reactive organic gases, and 46% of the nitrogen oxides.

Recent projections of the Environmental Protection Agency indicate that the emission control devices on cars will reduce pollution gradually for about the next ten years. By that time, however, the continuing growth of the number and usage of autos will begin to cancel out the individual reductions and total pollution will increase again. For this reason, the best available strategy for long term pollution reduction is to reduce the growth of total vehicle miles travelled. This can be accomplished in a variety ways--driving less, carpooling, development of mass transit, and land use changes to bring origins and destinations closer together.

D. Historical and Archaeological

In contrast to its natural resources, Santa Clara's history provides a unique resource that can still be conserved for future residents. Preservation will occur, however, only through continuing positive efforts of both public and private parties to overcome further loss of historic structures. Four of the fifteen landmarks identified by the County in 1962 have been demolished.

Within the City, relics from the four major eras of California history have been found: Indian, Spanish, Mexican and American. Evidence of the Ohlone Indian occupation is scarce. Since they did not construct permanent buildings, the major remains are burial grounds and rubbish mounds of shells, bones and rocks. Ohlone settlements were usually located adjacent to streams and construction excavation has revealed two sites along the Guadalupe River in Santa Clara. Unfortunately, these sites were largely destroyed by subsequent development.

From the Spanish era, 1542-1822, Santa Clara has the early Mission sites, El Camino Real, and the Indian Adobe. The Mexican period lasted from 1822 to 1848 and included the fifth reconstruction of the Mission.

Most of the remaining historical structures date from the American era following 1848. The Old Quad area of the City has examples from most architectural styles of the late eighteenth and early nineteenth centuries: Greek Revival, Gothic Revival, Stick, Queen Anne, Colonial Revival, Mission

V. Elements of the Plan

E. Open Space, Recreation and Conservation

Revival, Bungalow and Craftsman. Viewed as a neighborhood, the Old Quad is a unique historical and visual resource of the City. It stands out in contrast to the modern tract and commercial development of most of the Santa Clara Valley.

The first step in historic preservation is the inventory of sites and structures. The State of California, under the impetus of the Historic Preservation Act of 1966, has published a preliminary Inventory of Historic Features as Volume 2 of "The California History Plan" (August, 1973). This listing contains 3000 entries out of an expected 50,000 in the complete State inventory. Five features in Santa Clara are listed as California Historical Landmarks:

Adobe Indian Dwelling
Armistice Oak Tree
El Camino Real
First Site of Mission Santa Clara de Assis
Site of Mission Santa Clara de Assis

The Land Use Element Map identifies the following historic features:

Mission Santa Clara de Assis	The Alameda
Women's Club Adobe	1607 The Alameda
Berryessa Adobe	373 Jefferson
Carmelite Monastery	1000 Lincoln
James Lick Estate	Lick Mill Road
Morse Mansion	981 Fremont
Johnson House	1159 Main
Hichborn House	1091 Fremont
Dr. Saxe's Office	1045 Benton
Menzel House	1191 Benton
Warburton House	714 Main
Franck House and Gardens	1155-79 Washington
810 Washington	
Landrum House	1217 Santa Clara
Arguello House	1085 Santa Clara.

OPEN SPACE, RECREATION AND CONSERVATION POLICIES

In recognition of the need to preserve the quality of the local environment and create recreational opportunities for its residents, the City of Santa Clara adopts the following policies and principles:

1. Conserve and restore the environmental quality of the urban landscape.
 - a. Require landscaping in all private developments emphasizing the use of trees along street frontages and in parking areas.
 - b. Encourage the use of water features as an aesthetic element in residential and public areas.
 - c. Preserve and highlight historic landmarks that create a unique identity for Santa Clara.
 - d. Continue the emphasis on mission architecture in major public buildings and in private development within the Old Quad.
 - e. Support efforts to improve the air quality of the Santa Clara Valley.
2. Increase the effective use of recreational and aesthetic open space in and around the City.
 - a. Require landscaped open space in residential developments.
 - b. Encourage development of regional open space in the vicinity of Santa Clara.
 - c. Return leftover and odd-shaped City-owned lots to productive use.
3. Continue to develop recreation opportunities for residents.
 - a. Provide a well balanced, municipal recreation program that serves all segments of the population.
 - b. Encourage multiple use of land such as schools, parking lots, utility easements and flood control channels.
 - c. Seek construction of appropriate facility for recreation and cultural events.

V. Elements of the Plan
E. Open Space, Recreation and Conservation

4. Make prudent use of open space and recreation revenue sources such as Federal and State grants, private dedications and user fees.

OPEN SPACE, RECREATION AND CONSERVATION PROGRAM

ENVIRONMENTAL QUALITY

1. Maintain the Zoning Ordinance requirements for private open space and landscaping, and encourage the use of native plants needing minimum irrigation.
2. Continue an active street tree program for both public and private spaces. Investigate additional measures to augment the present program which will effectively cover the planting, preservation and maintenance of trees in all areas and zone districts of the City.
3. Encourage the addition of fountains and pools in private developments and parks.
4. Investigate available means of preserving unprotected historic structures. Apply historic zoning to qualifying properties and assist owners in obtaining tax assessments based on current use.
5. Continue the San Jose-Santa Clara sewage treatment plant's leadership in maintaining a high level of effluent quality and promote reclamation of treated water.
6. Cooperate with regional pollution control agencies in order to improve air and water quality.

OPEN SPACE

1. Preserve under public ownership the City-owned lands north of the Hetch-Hetchy aqueduct until their ultimate land uses are determined. It is certainly desirable, as is being done now, to lease sections on an interim basis for temporary uses, but the integrity of the parcels must be maintained. As the City approaches full development, these areas will be some of the last large parcels left undeveloped. At that time, when their use for refuse disposal is finished, a decision can be made concerning the future of the entire area. Although that future cannot be determined now, use as a major recreation area should definitely be considered as a possibility.
2. Implement the pedestrian walkways concept of the Old Quad Development Plan. Utilize excess street rights-of-way as a tool to create open spaces that will relate to the new residential developments.
3. Respond to the increasing interest in bicycles as a means of exercise and short distance transportation. The provision of special routes for bikes would make this activity much safer by reducing the conflict with automobiles.
4. Use non-marketable, publicly owned parcels for mini parks and low maintenance landscaping.

V. Elements of the Plan
E. Open Space, Recreation and Conservation

RECREATION

1. Continue support of the existing recreation program of the Parks and Recreation Department and cooperation with the School Districts to use their facilities to their fullest capacity. Playground facilities should always be open for use by the public.
2. Cooperate with local industries in creating recreational facilities for employees and residents. Several local firms have already shown interest in recreation programs such as lunch hour use of the International Swim Club. It may be possible that a firm's future expansion land could be temporarily utilized as a recreation area.
3. Seek preservation of the privately owned golf course in its present use.

V. Elements of the Plan
F. Seismic and Safety

VF. SEISMIC AND SAFETY -- BACKGROUND

The Seismic and Safety Element ensures the consideration of potential natural and man-made hazards in land use planning and municipal policies. Through this effort, injury and damage can be reduced and disaster relief costs minimized.

The range of considerations that may influence policy decisions includes seismic conditions, soil stability, fire, flooding, traffic safety. Planning responses to these conditions vary depending on local circumstances. Through building and land use controls, the effects can be minimized by imposing special criteria or by modifying natural conditions. The impacts of the situation can be reduced through operational policies or established procedures for disaster recovery.

I. Seismic Conditions

Seismic activity is the result of either the actual movement of the earth or a reaction of the underlying soils to the earthquake or a combination of both causes.

The City of Santa Clara is approximately 18 square miles in the center of the Santa Clara Valley. The Valley is a region of high seismic activity, as is all of California. It is possible that an earthquake with a magnitude equal to or greater than those which have occurred in this area in the past will happen again in the foreseeable future.

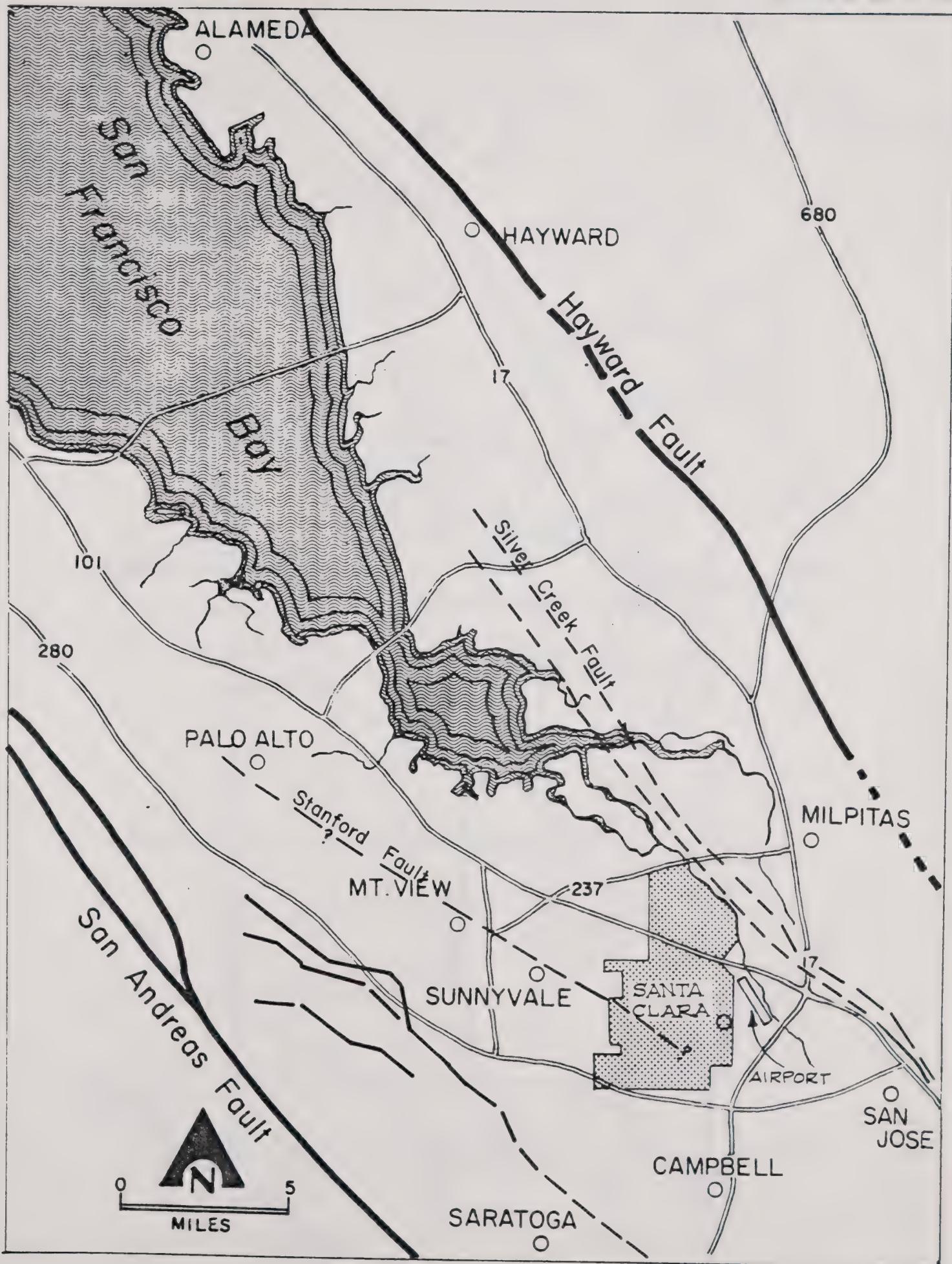
No earthquake faults identified as active are located within the City of Santa Clara (see Fault Zone Map). The City is, however, seven miles from both the San Andreas and Calaveras Faults and five miles from the Hayward Fault. The closer Stanford and Silver Creek Faults have not been active in historic times.

Depending on the underlying geology, soil conditions and slope, individual sites behave differently during the same earthquake. Using these factors, the State Division of Mines and Geology has mapped the relative seismic stability of land within the City (see Relative Seismic Stability Map).

a. Ground Rupture

Because there are no known active earthquake faults within the limits of the City of Santa Clara, it is reasonable to assume that there will be no damage from actual ground rupture or faulting.

FAULTS

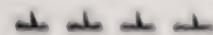


RELATIVE SEISMIC STABILITY MAP

SEE FOLLOWING
TABLE OF EXPLANATION



<i>Site investigation need areas</i>	<i>Geotechnical problems to be considered in detail by site investigation</i>	<i>Characteristic features</i>
0 Site investigations mandatory unless detailed information permit waivers	D1 Areas of high potential for liquefaction, lurching, and lateral spreading. D1-1: water table 0 to 10 feet below surface; D1-2: 10 to 20 feet. D2 Areas of high potential for liquefaction and differential settlement. D3 Areas of high potential for ground displacement along fault traces. D5 Areas of high potential for earthquake-induced landslides. D6 Areas of high potential for flooding from tsunami overtopping dikes.	Water table less than 20 feet below ground surface. Lateral spreading and lurching potential highest adjacent to stream channels. Peat deposits or compressible bay mud thicker than 5 feet. "Special Studies Zones" established by Alquist-Priolo Geologic Hazard Zones Act (including active and potentially active faults). Includes areas of existing landslides and slopes steeper than 15 percent underlain by bedrock units of low stability. Elevation 0 to 5 feet above sea level.
1 Site investigations required unless waived by County	E1 Areas of moderate potential for liquefaction, lurching, and lateral spreading. E3 Areas of moderate potential for earthquake-induced landslides.	Water table ranges 20 to 50 feet below ground surface. Slopes steeper than 15 percent on bedrock units of moderate stability, and slopes less than 15 percent on bedrock units of low stability.
2 Site investigations not mandatory may be required by County based on detailed assessment	F1 Areas of low potential for liquefaction, lurching, and lateral spreading. F3 Areas of low potential for earthquake-induced landslides.	Hillside areas. Valley areas where water table is deeper than 50 feet below ground surface. Slopes less than 15 percent on bedrock units of moderate stability, and all slopes on bedrock units of high stability.



Limit of flooding by San Francisco Bay water in the event of dike failure.



Boundary of area containing bay mud more than 5 feet thick.

b. Ground Shaking

The most widespread effect of an earthquake and usually the greatest cause of property damage and personal injury is ground shaking. The effects of ground motion on buildings depend on the characteristics of the shaking and the characteristics of the building. Other structural factors such as type and quality of materials and workmanship are also important. The main consideration is the capability of the foundation as a structural system to respond to earthquake ground motion as an integral unit.

Regulations within the Uniform Building Code and other State mandated requirements incorporate seismic information and considerations. Structures built in accordance with these regulations should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; 3) resist major earthquakes, equal to the strongest experienced in California, without collapse but with some repairable structural damage as well as non-structural damage.

More than 90% of the buildings in Santa Clara were built under modern building codes and are, therefore, considered to present no unacceptable risks for users and owners. Most older structures in Santa Clara are one-story and two-stories and are built with materials and types of construction likely to survive anticipated shaking with minimal damage. Typical wood frame construction can withstand severe shaking and even be thrown off its foundation without collapse. Buildings which deteriorate to an unsafe condition are subject to the Uniform Code for the Abatement of Dangerous Buildings, which requires that they be improved or demolished.

c. Liquefaction

Liquefaction occurs when water-saturated soils composed of silt, sand, or gravel are subjected to shaking by an earthquake. If the water is unable to drain, the soil assumes the property of a heavy liquid and no longer provides adequate support for foundations, buildings or upper layers of soil. Such liquefaction can cause severe damage to structures as a result of settling, tilting, or floating.

V. Elements of the Plan
F. Seismic and Safety

d. Differential Settlement

When loose or medium dense soils are subjected to shaking, they can become compacted. Differential or uneven settlement beneath a building can cause serious structural damage. Prolonged shaking of the alluvial soils of the Valley could cause such settlement, particularly if liquefaction of deeper soils occurs.

e. Dam Failures

If the Lexington Reservoir Dam failed, flooding is not expected to be a hazard to Santa Clara because of its distance (nine miles) from the Reservoir.

f. Tsunamis

The distance of Santa Clara from the Bay and the intervening salt ponds and levees is expected to provide adequate protection against waves generated by earthquakes.

2. Soil Conditions

The floor of the Santa Clara Valley has been built up over many thousands of years through a process of erosion of soils from the surrounding mountains and the deposition of these sediments in the Valley. Under the City of Santa Clara, these sedimentation layers have built up to depths over 2000 feet. The soil layers are considered generally stable under non-seismic conditions. This stability is enhanced by the lack of slopes within the City of Santa Clara. The elevations of the City reach 160' in the southwest corner and fall off gradually to approximately five feet on the northernmost boundary.

a. Weak Soils

The only area within the City of Santa Clara which is underlain by Bay mud is the northernmost corner between the Guadalupe River and Lafayette Street. This area is partially used for a storm drainage retention basin and the remainder for sanitary landfill. Thus, Bay mud does not present a problem for Santa Clara.

b. Expansive Soils

Many high clay content soils within the Santa Clara Valley are expansive. These soils have a shrink-swell characteristic

V. Elements of the Plan
F. Seismic and Safety

which is triggered by the amount of water in the soil. The soils swell when the water content is increased and shrink when decreased. This condition requires special design considerations where applicable.

c. Erosion

Because of the City's flat terrain and well-established creek channels, erosion is not a hazard within the City.

d. Sanitary Land Fill

Sanitary fill exaggerates the shaking motions of earthquakes effecting the site. Approximately 300 acres are planned for sanitary landfill of 30'. When the landfill process is complete, approximately 20 years from now, this land may become available for development. At that time, the structural characteristics of the land will require special design considerations.

3. Subsidence

Subsidence is a gradual lowering of an area of ground. Northern Santa Clara has had significant subsidence due to a drop in the underground water levels. This decline was the result of more water being removed from the underground sources than was being replaced. The Santa Clara Valley Water District has a program of recharging the ground water basin with imported as well as local water. Since 1970, this program has reduced subsidence to a negligible amount.

4. Fire

The City of Santa Clara has a good safety record in terms of fire protection and a minimum of fire losses. This record is reflected in the City's excellent fire insurance rating of Class 3. This low level of fire risk is the result of the high proportion of new construction which meets the current Uniform Building Code standards, and an efficient fire protection service.

Fire stations are strategically distributed throughout the City to provide minimum response time. The City's Fire Department is well-equipped to handle individual fires within the City. Mutual aid agreements with surrounding jurisdictions augment the City's fire response capabilities.

V. Elements of the Plan
F. Seismic and Safety

Fire has been one of the major causes of damage following large earthquakes because of disruption in utility service and access difficulty.

5. Surface Transportation

Santa Clara is crossed by a number of streams and grade-separated freeways. The possibility that all of the bridges and overpasses crossing these facilities will collapse during a major earthquake is remote. The State Department of Transportation's analysis of highway interchanges in Santa Clara (Appendix) indicates that after a major earthquake, as many as nine crossings may be unusable. In some interchanges, particularly the County expressway square loops, the central bridge can be bypassed through the diversion of traffic onto the ramps.

6. Flooding

Salt water flooding is limited to the extreme northern portion of the City. The construction of levees along the creek channels and the reconstruction of Route 237 along the northern border of the City have created barriers to tidal effects. Normal tidal movements are restricted to the water level in the creek channels.

The possibility of some inundation by fresh water is likely until the Santa Clara Valley Water District completes its channel improvements.

The City has joined the Federal flood insurance program and is working with the Federal government in developing appropriate local application. All of the areas covered by the 100-year flood will not be subject to life threatening or significant damage due to shallow depth of flood waters and low velocities of flow.

Recent subdivisions provide storm sewers capable of carrying runoff from a 10-year flood. Runoff in excess of the 10-year flood will be carried in the streets. Building pads have been elevated several feet above the streets and will not be effected by the first foot and a half of flooding. This design will substantially reduce the amount of property damage experienced in a major flood.

7. Aircraft

The County Airport Land Use Commission has determined that the area immediately north of the runways requires special

100 YEAR FLOOD HAZARD ZONE

(SUBJECT TO REVISION)



SAFETY - 9

Revision
FEB. 11, 1977

V. Elements of the Plan
F. Seismic and Safety

treatment and has established a safety area within the City (see map). Within this area, land uses are limited to low intensity storage and industrial uses.

8. Environmental Health Problems

Health problems can result from a variety of environmental sources, including air quality and the disposal of sewage and solid waste. The City of Santa Clara is adequately protected against water pollution and contamination from sewage and solid waste. Air pollution, however, is a continuing health problem in the Santa Clara Valley.

The emission control regulations have reduced the pollution from stationary sources such as major manufacturing plants and refineries, however, the continued growth of the number of cars has resulted in increases in certain pollutants, especially oxidants.

9. Disaster Planning

In cooperation with State and Federal Civil Defense authorities, the City of Santa Clara has developed a comprehensive and continuing program to protect local residents during and after a natural disaster or nuclear attack. An Office of Emergency Services with a Director has been created to coordinate civil defense efforts within the City.

The basis of the program is the organization of existing resources in the community so that they can be made available with short notice. The City's Resources Manual inventories local food markets, drug stores, first aid stations, fuel supplies, transportation resources, contractors, and communication stations. It also lists City personnel that are trained in skills that would be useful in an emergency situation.

As an emergency supplement to local hospitals which may have a reduced capacity following an earthquake, the City has a packaged disaster hospital with a 200-bed capacity that can be set up in 24 hours. In addition, the materials necessary to establish five first aid stations are stored within the City.

A system of shelters has been created in major public buildings and is capable of housing over 30,000 people for short periods. City employees have been trained in shelter management and assigned to specific shelters.

AIRPORT SAFETY AREA



V. Elements of the Plan
F. Seismic and Safety

In the event of an emergency, the design of the water and electric systems included some duplication of critical elements and margins of safety to meet short term demands. For example, the water system can meet peak demands for at least 12 hours with the loss of an electrical substation or the loss of the largest imported water source. Following a complete power failure, the average day demand can still be met for at least 12 hours using stored waters and standby pumps.

The City's electric system can sustain, for the long term, the loss of any one substation transformer with no long term loss of service to customers and any two such transformers with only a potential long term loss of customers. Generally, a disaster would probably not cause complete breakdown of the City's electric system.

Breaks in the sanitary sewers within the system can be anticipated. The water system must be used sparingly during these periods except for fire fighting.

V. Elements of the Plan
F. Seismic and Safety

SEISMIC AND SAFETY POLICIES

1. Review the City's Building Code regularly and make amendments as necessary to ensure that it uses the best available information on earthquake design standards.
2. Require soil reports to develop specific design requirements on all major projects.
3. Continue to support a policy of conservation, use and recharge, including the development of water importation measures that will ensure an adequate potable water supply and maintain ground water levels.
4. Support flood control improvements that will reduce serious flood hazards in the City. Minor low frequency flooding, particularly in industrial areas, is an acceptable risk and should not be the justification for unnecessary flood control measures.
5. Continue emergency planning with an emphasis on providing contingency City services including utilities for those that may be affected by a major earthquake or other disaster.

VG. NOISE

The problem of noise has worsened rapidly as our society has become mechanized and urbanized. Noise can interfere with communication and create psychological effects through disruption of sleep and constant annoyance. With the recognition that Santa Clara is an urban area, the City is working towards reasonable reduction of the adverse effects of noise on its residents and establishment of acceptable noise standards.

1. Measurement of Noise

Sound is the result of the vibration of an object which is transmitted through the air in waves which in turn vibrate the human ear drum. Sound is measured in units called decibels (dB). Since the human ear does not hear all sounds equally, a special weighted decibel measurement (dBA) is used to simulate human hearing.

In any one location, the noise level will vary over time, from the lowest background or ambient levels to that of passing airplanes or construction equipment. Various techniques have been developed which measure the effects of noise levels over a period of time. The State of California utilizes a measurement scale called "Community Noise Equivalent Level (CNEL) which places a weighting factor on sound events occurring in the evening or nighttime hours. A similar measure promoted by the Federal Environmental Protection Agency is called "Day-Night" (Ldn).

It has been known for some time that extremely loud noise experienced over a long period of time could cause a physical deterioration of hearing. Recent research has indicated that lower levels of noise can also have adverse effects. At the most common levels, noise can be a source of annoyance through interruption of periods of relaxation or concentration. These same noises at night can interrupt sleep. In schools, loud external noises can weaken the learning process by making speech difficult to understand. Over a longer period of time, annoyance can become a psychological problem causing irritation and stress.

At the higher levels of noise, the ear will begin to take protective measures such as a temporary reduction in hearing sensitivity. Given enough exposure to such noise levels, the temporary insensitivity can become permanent hearing loss.

V. Elements of the Plan
 G. Noise

SOUND LEVELS
 WITH dBA EQUIVALENT AND HUMAN RESPONSE

EVENT	dBA	RESPONSE	EFFECT
	140		
Jet Takeoff from Carrier	130	Painfully loud	
	120		
Auto Horn (3 feet)		Maximum vocal effort	
Rock and Roll Band	110		
	100		
Garbage Truck			
	90	Very annoying Hearing damage (8 hours)	
Power Mower			
	80	Annoying	
Alarm Clock			
<u>Freeway Traffic (50 feet)</u>	70	<u>Telephone use difficult</u>	<u>CONTRIBUTION TO HEARING IMPAIRMENT BEGINS</u>
	60		
Light Auto Traffic (100 feet)	50	Quiet	
	40		
Library			
Soft Whisper	30	Very Quiet	
	20		

V. Elements of the Plan
G. Noise

The dBA equivalent chart gives example measurements for a number of typical noise events.

2. Major Noise Sources

The most widespread and continual sources of noise in Santa Clara are the transportation facilities. Unfortunately, in terms of improving the noise environment, these same facilities are those over which the City has the least control.

a. Freeways and Expressways

A moving car has a number of noise sources; the engine, the exhaust, the tires in contact with the road, and air passing by the car. All of these tend to increase with higher speeds. As a result, those roads with the most cars and the highest average speeds are the strongest sources of noise. The network of freeways and expressways in the City has an adverse noise impact on a high proportion of homes.

The noise characteristics of individual cars are determined by the State. The design and construction of these roads are controlled by either the State or the County. By depressing a road through a developed area, acceptable noise levels can be maintained on adjacent property. On expressways, the County has begun to build noise walls on residential property lines. Other factors such as pavement texture, gradient, and building orientation can be altered to minimize adverse effect.

b. Local Arterials and Collectors

Although the average speed and traffic volumes are not as high, other major streets in the City are also sources of noise. Because residential houses normally face directly on these streets, the impact of the noise can be significant. The opportunities for noise barriers between the traffic and the houses are less.

Given the existing high traffic volumes on nearly all major streets in the City, it is rarely possible to divert traffic from any major street without merely shifting the problem to other residential streets.

c. Airport

The noise generated by aircraft using the San Jose Municipal Airport has a significant impact on the Santa Clara residents in the area north of the Bayshore Freeway. (See Airport Noise Contours Map) The Santa Clara County Airport Land Use Commission, created by State legislation, has jurisdiction over land uses under the airport flight pattern. This Commission has determined that the noise environment in this area is adverse enough to prohibit any new residential development. Such a policy may prevent an increase in the number of people affected by the airport, but does not improve the living conditions of existing residents.

The technical design of aircraft and the San Jose Airport are determined by Federal, State, and San Jose agencies.

The San Jose Airport has been taking actions designed to reduce its noise impact. A monitoring program has been established around the airport and flight patterns of commercial aircraft have been altered to minimize the amount of low altitude flying.

The State has also adopted legislation which requires that the noise levels from airports affecting residential uses be reduced over the next ten years. This law requires either that the noise be reduced or the residential uses relocated.

In the area immediately south of the San Jose Airport, San Jose has begun acquisition of residential and educational uses to eliminate the noise conflict.

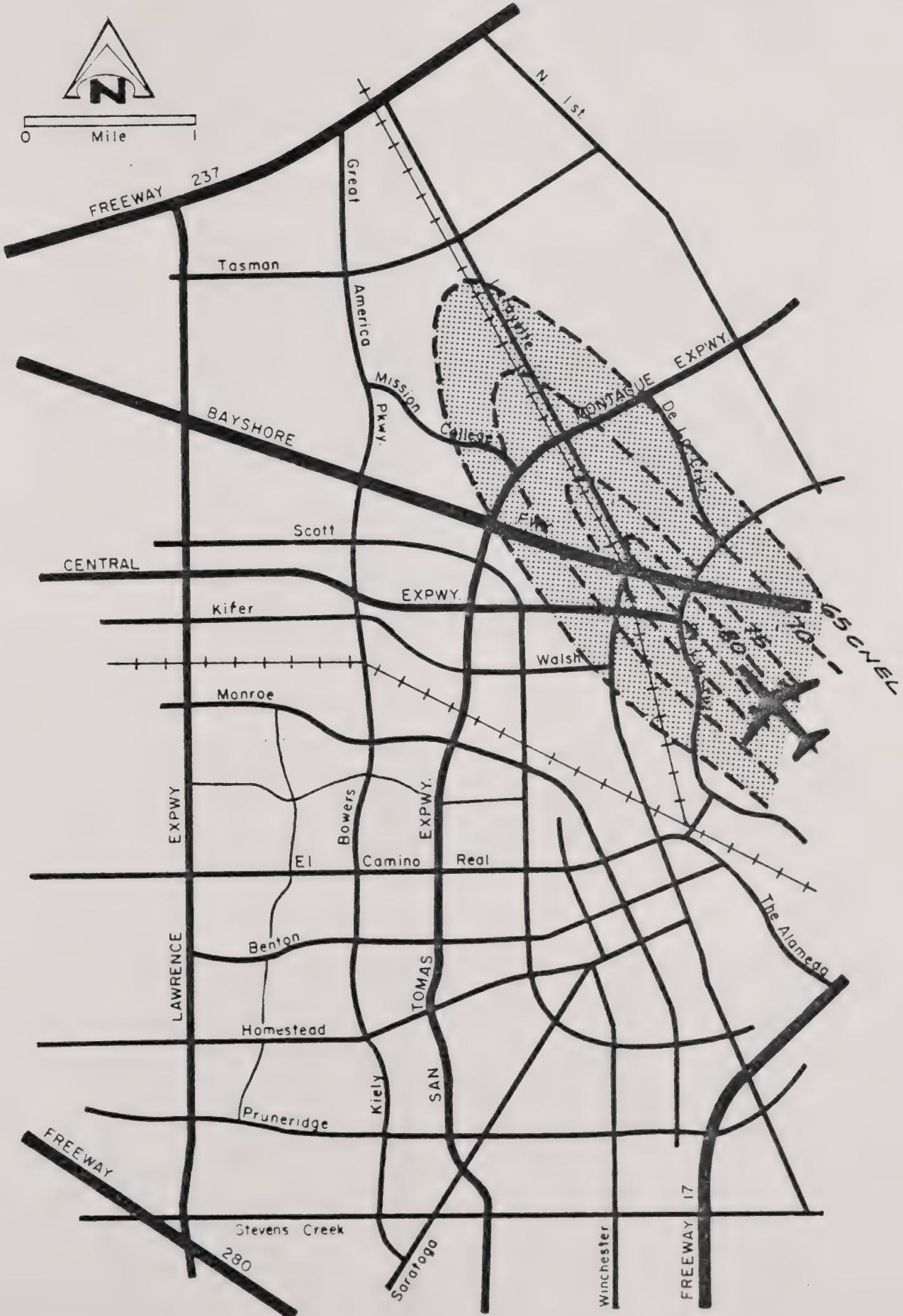
d. Railroads

The Southern Pacific Transportation Company has two rail lines through the City of Santa Clara. The San Francisco line forms the boundary between the residential area and the industrial area. The Oakland line passes through the industrial area and parallels Lafayette Street between Agnew Village and Agnews Hospital. Operations on these lines include both passenger and freight service with spur tracks within the industrial area.

e. Rapid Transit

Future transportation facilities in Santa Clara may include rapid transit with fixed guideways. The noise impacts of such a system should influence both the location of the routes and the operational design. Low noise alternatives

AIRPORT NOISE CONTOURS



V. Elements of the Plan
G. Noise

such as undergrouding, light weight, and rubber tires, must be balanced with other factors, particularly cost.

f. Industry

Industrial land uses involve a number of activities which have a potentially adverse noise impact. Many basic industrial processes such as fabricating, stamping, pressing and grinding are extremely noisy. Peripheral activities such as loading and unloading, truck movements, and equipment like compressors also create noise. A basic goal of Santa Clara's General Plan has been the separation of industrial and residential uses to eliminate the noise conflict. Overall this policy has been effective, however, in the southwest corner adjacent to Vallico Park and north of Bayshore in the De La Cruz industrial area, residential and industrial uses are immediately adjacent. In the past, both of these areas have been sources of complaints concerning industrial noise. This conflict can be reduced through the prohibition of outdoor industrial activities adjacent to the residential areas, solid walls facing residences, and heavy landscaping of common property lines. In one instance, outside compressor units were enclosed in soundproof sheds to satisfy neighbors.

g. Fixed Noise Sources

In areas outside industrial zones, permanent equipment has been the source of some noise complaints. The worst offenders are refrigeration units, air conditioning units, and pool pumps. Although the City currently requires roof-mounted equipment to be screened, there is no noise insulation requirement.

h. Short Term Noise Sources

Temporary activities such as construction, parades, concerts, tree removal, and outdoor sports events are major sources of annoying noise. The fact that they are short in duration often means that the operator gives even less thought to the resulting noise. Construction activities in particular often last for several months and generate substantial numbers of complaints. Some are unavoidable, but new advances in muffling can reduce noise from jackhammers, portable compressors, and generators.

V. Elements of the Plan
G. Noise

i. Interior Sources

A chronic complaint of many apartment dwellers is the amount of noise from adjacent units. These noises include voices, stereo equipment, and the vibrations from dishwashers and garbage disposal units. Noise between apartment units is transmitted either as airborne sound which passes through the walls or as vibration sound travelling along pipes or structural members of the building. Prior to 1973, the Building Codes had no requirements for sound insulation. In 1973, the City adopted sound transmission criteria that substantially reduces the amount of noise that can pass through walls and floors of apartment units.

3. Noise Contours

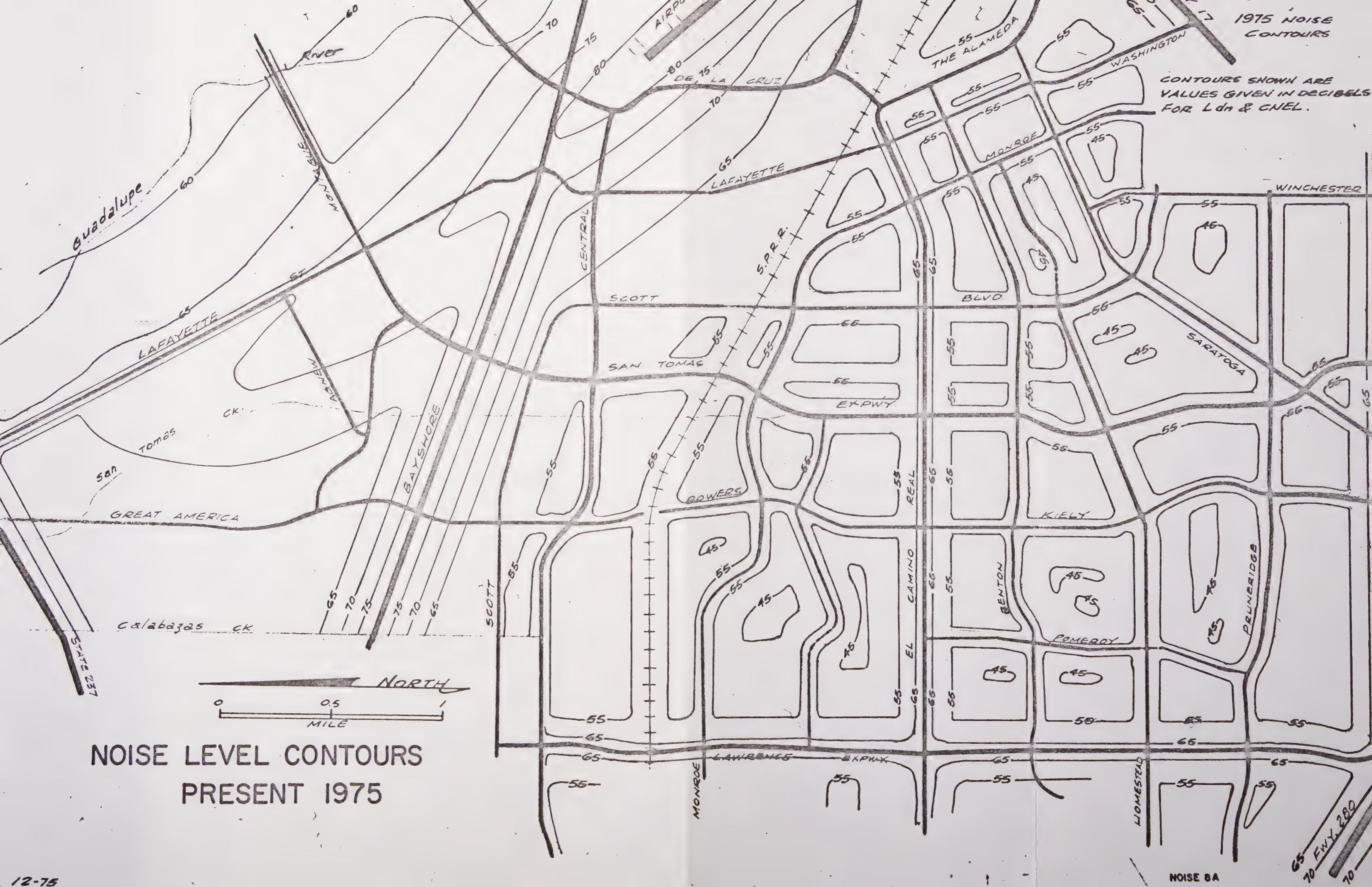
One way of describing the noise environment of the entire City is through a noise contour map. Similar to topographic contour maps, a noise contour map has lines which indicate areas of equal noise levels.

The noise contour map utilizes the day-night measurement scale (L_{dn}). For the range of values on the City's contour map, the CNEL and L_{dn} measurements are essentially the same and the actual reading would be within one decibel for either scale.

In order to prepare the existing noise contours, 60 sample measurements were taken at locations throughout the City. Using these measurements, the noise contours for the freeways, the traffic counts on local City streets, and the airport noise measurements, the noise contours throughout the City were estimated (see Existing Noise Contour Map).

The contours of future noise levels were developed through the association of noise levels with particular volumes of traffic. The basic source for the future noise levels was the City's projection of traffic volumes in 1990. It was assumed that the noise levels generated by the San Jose Airport would not change significantly between now and 1990. Increases in air traffic should be offset by the new, quieter jet engines (see 1990 Noise Contours Map).

The noise contour map presents very strongly the importance of traffic and the airport in determining the noise environment of the City. The quietest areas of the City are those furthest from major City streets. The noisiest areas are under the airport pattern and immediately adjacent to freeways.



NOISE LEVEL CONTOURS PRESENT 1975

12-75



NOISE LEVEL CONTOURS FUTURE 1990

12-75

V. Elements of the Plan
G. Noise

4. Noise Sensitive Areas

In addition to uses which cause noise problems, there are uses that are particularly sensitive to noise. Sensitive uses include sleeping, convalescence and teaching, and the sensitive areas of the City are residential, educational, and medical.

Where a noise source and a highly sensitive area overlap, the potential for noise conflict is greatest. In Santa Clara, these areas are: (1) Agnews Hospital, the surrounding residences and elementary schools, all of which are under the airport flight path; (2) residential developments along the railroad lines and the Lawrence and San Tomas Expressways; (3) the proposed Mission Campus of the West Valley College; and (4) residential uses adjacent to industrial property.

In 1975, approximately 4300 residents were exposed to noise levels in excess of 65 CNEL. Seventy-four percent of these residents were impacted by San Jose Airport-generated noise. By 1990, 4900 residents are estimated to be exposed to 65 CNEL noise or greater, with most of the increase due to new development already approved under the Airport flight pattern.

5. Methods of Reducing Noise Conflict

The perception of noise involves a source, a transmission phase, and a receiver. The sequence can be interrupted at any of the three points and the noise impacts reduced.

A noise source can be controlled through regulation such as a noise ordinance or through muffling techniques which reduce the amount of sound emitted.

The transmission phase can be interrupted through the creation of a buffer between the source and the receiver, such as a noise wall, earth embankment, or building.

The receiver can be protected from the noise impacts through insulation, building orientation, shielded areas, or the wearing of earplugs. Through zoning regulations and building design review, noise impact on the receiver can be minimized.

6. Noise Standards

In order to avoid the problem of having to judge noise simply on someone's complaint, noise standards must be established which reflect a City-wide judgment. Decisions can then be made based on whether a particular use is incompatible with the existing noise levels.

V. Elements of the Plan
G. Noise

The U.S. Environmental Protection Agency has identified those noise levels which interfere with important human activities like sleeping and speech and the noise level which can result in permanent hearing damage. Studies have indicated that a noise environment of 40 L_{dn} will permit 100% hearing of speech. Since the typical house provides an outside to inside noise reduction of 15 dB, the maximum exterior noise level that doesn't interfere with speech is 55 L_{dn}.

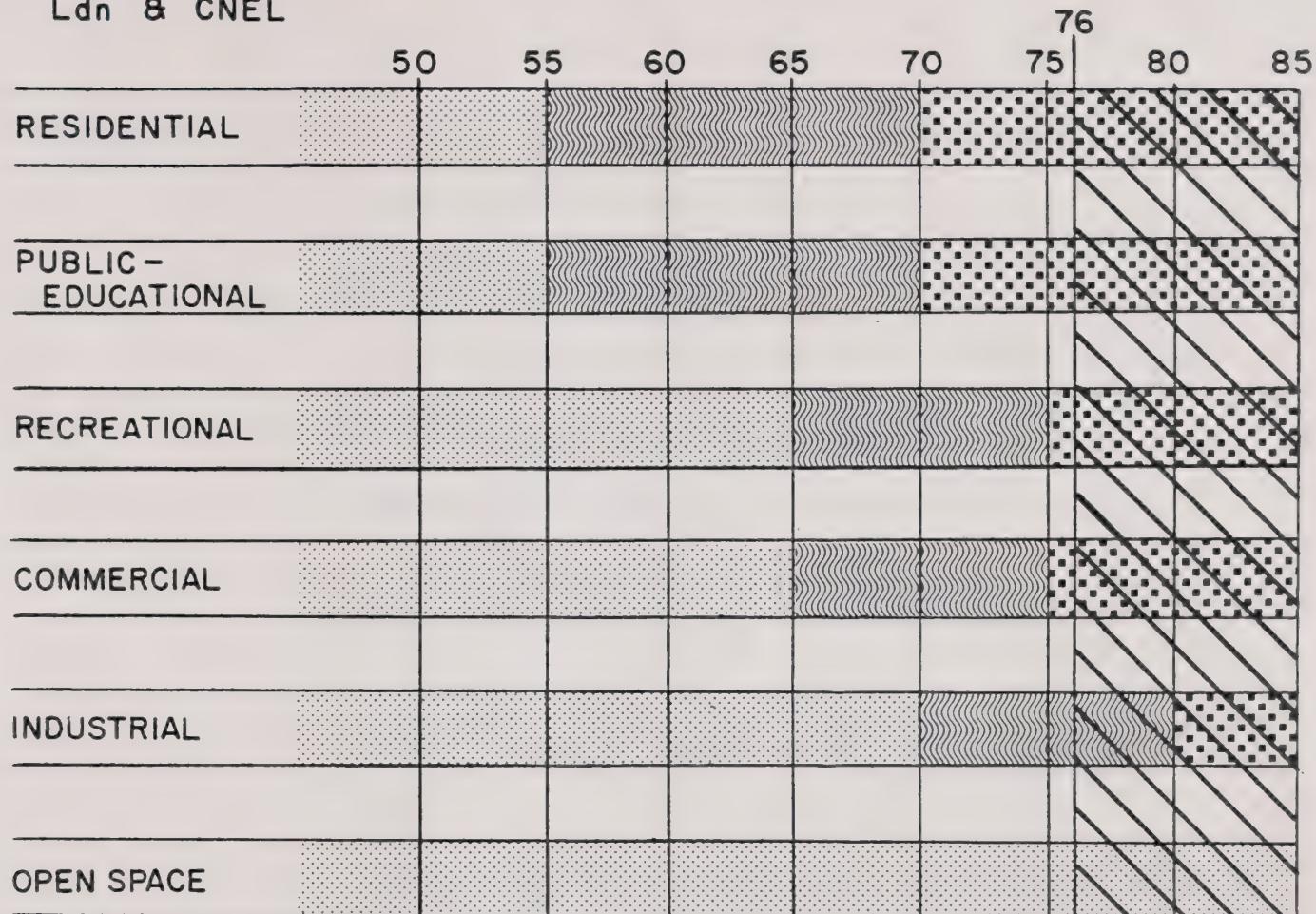
The indoor, evening noise level associated with 55 L_{dn} is 32 dB, which is "consistent with the limited available sleep criteria." (Environmental Protection Agency, Information on Levels of Environmental Noise..., March 1974).

The noise criteria for protection against hearing loss is based on eight-hour, working day exposure converted to a year round, day-night scale. The identified level is 76 L_{dN}. The existing noise contour map indicates four locations in the City where this critical level is reached; immediately under the airport pattern and adjacent to each of the three freeways.

With these two noise levels as a starting point, a Noise and Land Use Compatibility chart has been prepared as a guide for noise related decisions. Because many areas of the City currently exceed the standards, particularly residential and educational uses, the chart must be considered as an objective which the City should be working towards.

NOISE AND LAND USE COMPATIBILITY

Ldn & CNEL



COMPATIBLE.



REQUIRE DESIGN & INSULATION TO REDUCE NOISE LEVELS.



INCOMPATIBLE. AVOID LAND USE EXCEPT WHEN ENTIRELY INDOORS AND AN INTERIOR NOISE LEVEL OF 45 Ldn CAN BE MAINTAINED.



HEARING DAMAGE POSSIBLE WITH LONG TERM EXPOSURE

V. Elements of the Plan
G. Noise

NOISE POLICIES

1. Reduce traffic noise by:
 - a. Support of programs such as carpooling to minimize the use of automobiles.
 - b. Concentration of through traffic on major arterials.
 - c. Construction of noise barriers along freeways and expressways where adjacent to residences.
2. Review fixed guideway transit proposals with concern for potential noise impacts.
3. Support policies for the San Jose Airport that will reduce its noise impact on Santa Clara residents.
4. Following adopted Airport Land Use Commission policy, oppose new major residential development within the noise impact area. Permit appropriate residential development of lots within established residential areas.
5. Take advantage of improvements that reduce noise when purchasing new City equipment.
6. Use the Existing Noise Contour Map to enforce the State noise insulation requirements for new multi-family housing.
7. Provide design criteria that will reduce the noise impact of industrial uses adjacent to residential areas.

V. Elements of the Plan
H. Scenic Highways

VH SCENIC HIGHWAYS

Although the Junipero Serra Freeway is the only route through the City of Santa Clara that is included in the State's Scenic Highway Master Plan, a strong program is being carried out to provide an attractive view of the City from the major through routes.

Both the Junipero Serra and the Nimitz Freeways are landscaped along major portions and the Bayshore Freeway has planting around the interchanges. Santa Clara will also cooperate in meeting State standards for landscaping along the future Mountain View-Alviso Freeway.

The County Expressway system has a staged program of cooperative landscaping whereby the County will maintain the planting put in by local jurisdictions. In some median strips where landscaping has not been started, wildflower seeds have been sown as a low cost treatment on an interim basis.

On local streets, Santa Clara has extensive landscaping along El Camino Real and Saratoga Avenue. The future extension of Bowers Avenue north of the Southern Pacific tracks will also have a landscaped median.

In order to improve the appearance of property beyond the street right-of-way, Santa Clara has adopted several zoning controls. The City Council enacted a resolution prohibiting billboards within 600' of freeways and expressways.

The Zoning Ordinance has front yard and landscaping requirements for all zone districts. As a result, most streets in the City have at least 10' of landscaping along either side. An Architectural Control Committee also reviews the design of industrial, commercial and multiple residential developments to ensure basic standards of appearance and planting quality.

THE OLD QUAD PLAN

RESIDENTIAL

- SINGLE FAMILY
- GARDEN APARTMENT
- MEDIUM DENSITY
- HIGH DENSITY

COMMERCIAL

- CONVENIENCE
- THOROUGHFARE
- OFFICE
- MULTI-PURPOSE CORE
- INDUSTRIAL
- LIGHT

PUBLIC FACILITIES

- INSTITUTIONAL
- EDUCATIONAL
- FIRE STATION
- HISTORICAL LANDMARK
- PARKS & RECREATION

CIRCULATION

- TRANSPORTATION CENTER
- EXPRESSWAY
- THOROUGHFARE
- THOROUGHFARE WITH LANDSCAPED MEDIAN
- COLLECTOR



V. Elements of the Plan
I. Old Quad Development

VI OLD QUAD DEVELOPMENT

I. Background

The "Old Quad" is an area of the City containing the original surveyor's quadrant of Santa Clara. The boundaries of the Old Quad, enclosing an area of approximately 170 square blocks, are: the Southern Pacific Railroad on the north; the Santa Clara City limits on the east; Bellomy Street and The Alameda on the south; and University Street, Pierce Street, and Scott Boulevard on the west.

Prior to World War II, the City's physical development was limited to the Old Quad. Within this area, along Franklin Street, was the historic downtown and activity center of Santa Clara.

The rapid growth of the Santa Clara Valley during the 1950's and 1960's led to the development of a regional shopping center on Stevens Creek Boulevard and strip commercial along El Camino Real. Increasing numbers of shoppers were drawn to these new commercial locations and away from the Franklin Street stores. In comparison with the newer areas of Santa Clara, the Old Quad has become disadvantaged. The percentage of retired, low income, and minority residents is significantly higher than for the whole City. Santa Clara responded to these conditions in several ways.

1. The 1960 General Plan identified the downtown as needing revitalization and permitted increased intensities of both residential and commercial uses.

2. The University Redevelopment Project was conceived to renew over twenty blocks in the downtown. Federal funding constraints limited this project to the clearance of eight blocks. A two-block shopping mall was built with a wide variety of one-of-a-kind stores and services.

3. The difficulty of marketing the remaining Redevelopment land caused the City to initiate a comprehensive study of the whole Old Quad. The result was the adoption in 1970 of the Old Quad Development Plan. This plan reflected the continued desire of the City to create a strong central business district and surrounding higher density residential area. The creation of a visually prominent east-west activity core was the essential element of the Old Quad Development Plan. The core was to be reinforced by surrounding medium and high density housing. Linking the various elements of the plan together was a pedestrian-oriented circulation system.

V. Elements of the Plan
I. Old Quad Development

The continued efforts of the University Redevelopment Project and the Old Quad Development Plan have not been able to overcome continuing commercial development in surrounding suburban areas. Furthermore, applications for the development of high density housing have met with increasing public resistance. Many residents of the Old Quad are opposed to such a drastic change in their neighborhood and wish to retain the historically and architecturally significant homes in the area.

The current Old Quad Plan contains policies for preserving much of existing attractive character of the area while, at the same time, pursuing those policies that will maximize the social and economic potential of the City's core area.

2. The Old Quad Plan

a. Residential Land Use

Although a major goal of the Old Quad Plan is to preserve and enhance single family areas, it also permits higher intensity residential, commercial, and mixed uses where appropriate. There is a long term demand for more housing in Santa Clara and the Old Quad can accommodate some of this demand.

The designated residential areas are:

i. Single Family Preservation Areas

Renovation and preservation of existing single family homes is the major concern. New development will be carefully reviewed to ensure compatibility with surrounding single family homes.

ii. Garden Apartments

This category of medium-low density residential use (10-24 units per acre) permits two-story, walk-up apartments with substantial landscaping. Single family attached units such as townhouses and duplexes are also appropriate housing within this classification. It is anticipated that garden apartment units will comprise the bulk of new housing in the Old Quad.

iii. Medium Density

Medium density residential uses with a density of 25-36 units per net acre will normally be three to four-story elevator apartments.

V. Elements of the Plan
I. Old Quad Development

iv. High Density

This category contains medium- and high-rise residential developments in excess of 36 dwelling units per acre. High density housing will be permitted only in areas with compatible adjacent uses and where visual focus is desired, such as surrounding the Mission Library and within the multi-purpose core.

b. Commercial Land Use

The current plan proposes commercial uses suitable for meeting the retail needs of the Old Quad residents, plus limited and special purpose uses that can serve City-wide needs. Emphasis will be placed on pedestrian orientation and convenience in the Old Quad area.

i. Thoroughfare Commercial

Within the Old Quad, automobile-oriented commercial uses currently exist along El Camino Real and in the area immediately south of the University along The Alameda. The Old Quad Plan proposes that these commercial uses be retained in their present locations. Following rerouting of El Camino Real, it is proposed that additional thoroughfare commercial development be located along the road's new alignment north of Benton Street.

ii. Offices

The major concentrations of office space will be located in the multi-purpose core and west of the Civic Center. Office developments will vary from low density, low-rise buildings (one to three floors) situated on well-landscaped sites, to high -rise office towers, particularly in the multi-purpose core.

iii. Light Industrial

The Plan allows for some industry between the Southern Pacific Railroad and El Camino Real reroute.

V. Elements of the Plan
I. Old Quad Development

Multi-Purpose Core

The Old Quad Plan proposes that a pedestrian-oriented multi-purpose core be developed along Franklin Street. The Redevelopment Project site is included in this core.

It is the plan's intent that the multi-purpose core provide a concentration of retail, office, residential, and public uses. The elements of the core will be linked by a landscaped pedestrian mall on which auto traffic is prohibited. First floor occupants should be shops and services which open to the mall and create an active, interesting atmosphere.

The multi-purpose core would allow for a closer mixing of uses than permitted elsewhere in the City. For example, development of residential uses above compatible commercial uses would be possible.

Generally speaking, most high intensity land uses in the multi-purpose core would be in the Redevelopment Project site. The remaining areas of the multi-purpose core will contain retail shops, restaurants, and medium density housing.

c. Circulation

The major streets of the Old Quad as designated in this plan and the adopted plan lines, will carry the bulk of the through traffic. Other streets are needed only for access to adjacent properties. By encouraging this distinction between street functions, traffic on non-major streets can be reduced and residential livability increased.

The proposed rerouting of El Camino Real will emphasize its role as the major traffic carrier through the area. Other arterials will be widened to the plan lines when traffic volumes warrant.

Minor residential streets will be de-emphasized for through traffic. De-emphasis will allow, with owner and resident concurrence, narrowed pavement and increased landscaping with malls, commons, and pedestrian pathways. In blocks of land use transition, right-of-way from excess street width could be used to promote assemblage of larger parcels.

V. Elements of the Plan
I. Old Quad Development

The concentration in the Old Quad of elderly residents and others without access to automobiles makes public transportation essential to the area. Currently, the County Transit bus system provides service to the Old Quad. Five routes stop at Franklin Mall, making it an important transfer point. As the bus system expands, a terminal facility can be developed near the Mall, such as the old bank building. This could become a collection point for the bus network. The passengers using the terminal would also be a source of patronage for the Mall. Exclusive bus lanes or even streets will be considered to facilitate effective transit service.

In order to compete with the automobile in travel time, some of the transit will have to be developed on separate rights-of-way. The existing Southern Pacific Railroad serving the Peninsula is a possible alignment for rapid transit. The plan proposes that a transportation center be established at the end of Benton Street between the new El Camino Real and the railroad. This site would be accessible to the railroad, to transit using the rail right-of-way, to buses and cars using El Camino Real, and to the east-west pedestrian axis. Sufficient space can be made available for a large parking area, as well.

d. Design

The basic design policy for the Old Quad has been to promote Mission style architecture on public, commercial, and multiple family buildings. This policy has been quite successful and the Mission motifs of tile roofs, stucco walls, and dark wood trim, have become prevalent in the area.

With the renewed emphasis on preserving the existing housing, however, some conflict has arisen. The Mission style is not fully compatible with the Victorian and Bungalow styles of most older homes. These homes have shingle roofs with gables, wooden siding, and a variety of colors, all of which contrast with red tile roofs and white stucco.

It is important that new development in the preservation areas be compatible. The Architectural Control Committee must be aware of adjacent properties and promote design features that will harmonize rather than conflict.

Although the single family preservation areas include many historic homes, a number of significant structures are located elsewhere in the Old Quad. Through the historic zone district, Santa Clara permits limited commercial uses in historic

V. Elements of the Plan
1. Old Quad Development

residential structures to encourage their preservation. The large old homes on the north side of Benton are excellent candidates for this zoning and, hopefully, can be maintained rather than torn down.

The existing scale and character of the Old Quad is conducive to walking. This plan capitalizes on this orientation and proposes pedestrian paths to link major activity areas and points of interest. Paths can range from a standard sidewalk to a meandering sidewalk adjacent to a narrowed street to an exclusively pedestrian mall. The major path would be in the multi-purpose core extending from the Monastery on the west to the transportation center at the railroad. Other connections would be made among the Senior Citizens' Center, Liberty Tower, University of Santa Clara, and Santa Clara High School.

One of the attractive features of the Old Quad is the large trees lining some streets. The visual effect and shade created by these trees is crucial to the area's character. Large trees should be planted throughout the Old Quad and used to delineate major streets and pedestrian areas.

Trees can also highlight the entry points to the Old Quad. Landscaping at the intersection of El Camino Real and Lincoln and the future joining of El Camino Real and The Alameda will create a distinctive identity for the area, just as the Saratoga Avenue median has for that entry.

The Old Quad will increase its capacity as a total environmental entity with a wide range of residential, civic, cultural, recreational, and business facilities. Development will be at an intimate pedestrian scale and of high aesthetic quality throughout with a dominance of large trees, shaded walks, and well maintained older buildings.

OLD QUAD DEVELOPMENT POLICIES

1. Enhance the distinctive character of the Old Quad, emphasizing historic preservation, pedestrian orientation, architectural quality and a lively commercial center.
2. Retain predominantly single family areas through preservation and rehabilitation of existing homes. Insure that new construction in said areas is compatible with adjacent single family use.
3. Permit medium density housing in transition areas subject to architectural review for compatibility with adjacent structures.
4. Develop a commercial core of mixed uses oriented around a pedestrian mall. Ground floor space should emphasize retail, specialty, office and service uses with office and residential uses on upper stories.
5. Accommodate through traffic on designated major streets.
6. Improve the liveability of minor residential streets by planting trees and emphasizing their pedestrian function.

VI. Implementation
A. Precise Plans

VIA PRECISE PLANS

Precise plans detail the design of functional elements within the General Plan and are used as the basis for estimating costs, priorities and scheduling in the Capital Improvements Program. The precise plans are not considered to be final or inflexible; rather, they represent a more specific view of how the General Plan may be used in controlling and holding to a high standard the City's development.

The first set of precise plans for Santa Clara were developed in conjunction with the original General Plan in 1960. Since that time the plans have been maintained by the City departments in charge of the respective functions. Present plans include: 1) Streets and Highways; 2) Water; 3) Sanitary Sewers; 4) Storm Drainage; 5) Electrical; 6) Street Lighting; 7) Fire Protection; and 8) Parks and Recreation.

VI. Implementation
B. Capital Improvement Program

IVB CAPITAL IMPROVEMENT PROGRAM

One of the most decisive tools for effectuating the General Plan is the Capital Improvement Program which determines the schedule for construction of public facilities. The Program establishes a priority list of needed improvements such as streets, sewers, parks; estimates construction costs; identifies finance sources and schedules project developments over the next five years. The Program is updated yearly to account for changes in needs and revenues and to keep the ten year lead time.

The Capital Improvement Program also provides a summary for the City Council and public of where municipal expenditures for facilities are being spent both in terms of function and area.

The Planning Commission must submit an annual report to the City Council regarding the Capital Improvement Program . The report shall review each project for its conformity to the General Plan, review the program as a whole in order to suggest an improvement in economy or efficiency, and suggest needed improvements which do not appear in the program.

VI. Implementation
C. Regulations

VIC REGULATIONS

1. Zoning Ordinance

The Zoning Ordinance governs the use of the land within the City. It determines the type of use, the density of living or working population, the general arrangement of buildings and the necessary facilities, such as off-street parking, driveways and signs. The Zoning Map gives legal definition to the land uses delineated in the General Plan.

The basic intent of the Zoning Ordinance is:

- a. To promote the public health, safety, morals, comfort and general welfare; and
- b. To conserve the values of property, protect the character and stability of various land uses, and to promote the orderly and beneficial development of such areas.

The present Ordinance underwent extensive revision in 1969 and has operated successfully since then. Several new sections have been added to accommodate unanticipated situations; conversions of apartments to condominiums, preservation of historic structures and regional commercial developments.

2. Subdivision Regulations

These regulations determine the standards for the division of land into smaller parcels. In addition to establishing minimum lot sizes and shapes, subdivision regulations set the requirements for street and utility improvements by the developer, drainage patterns and the reservation of school and park sites. The parcel buyer is thus assured that his property is properly served by utilities and access.

3. Official Plan Lines

Plan lines are adopted by the City Council in accordance with the Streets and Highways plan. These plan lines establish building setback and right-of-way on major streets, thus reserving needed area for future acquisition and widening.

4. Environmental Review

The requirements of the California Environmental Quality Act enable the City to review development proposals for their effects on the environment. Environmental Impact Reports are prepared for major projects which allow the City to evaluate them and possible alternatives in relation to the policies of the General Plan.

5. Building and Housing Codes

Insuring that the buildings in the City meet basic safety and health standards is the purpose of the Building and Housing Codes. The Building Code establishes the construction, plumbing and electrical specifications for new development and is enforced through plan checking and on-site inspections.

The Housing Code is utilized to prevent residences from deteriorating or becoming a health hazard. The Housing Inspectors can require repairs or authorize condemnation of dilapidated structures.

As new situations arise, the City has enough flexibility to respond with appropriate measures. As an example, a business license team comprised of the Business License Administrator and staff from the Planning, Building and Fire Departments makes on-site inspections of all new businesses to ensure that they meet City standards. This technique maximizes uniformity and consistency in enforcement and simplifies procedures for both the owner and the City.

VIIA CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

The Guidelines for the California Environmental Quality Act (CEQA) permit the requirement of an Environmental Impact Report (EIR) on a City's General Plan to be incorporated into the Plan. Such a combination eliminates duplication between the EIR and elements of the Plan and ensures that environmental considerations are an integral part of the planning process.

The following index locates where the EIR sections are found in the General Plan.

ENVIRONMENTAL IMPACT REPORT INDEX

EIR Section	G.P. Section
Project Description	
Objectives	Purpose
Description	Summary, Goals & Policies
Location	Background
Site Plan	Land Use Map
Environmental Setting and Impacts	
Regional Setting	Background
Natural/Physical Setting	
Hydrological	Open Space, Recreation & Conservation
Geological	Seismic & Safety, Appendix
Biotic	Open Space, Recreation & Conservation
Atmospheric	Open Space, Recreation & Conservation
Acoustic	Noise
Visual	Land Use, Old Quad
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Public Utilities	Public Facilities
Transportation	Circulation
Economic	Assessment
Population & Housing	Assessment, Housing
Historical/Archeological	Open Space, Recreation & Conservation
Alternatives	Land Use

VII. Appendices

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Short Term Uses/ Long Term Productivity	Open Space, Recreation & Conservation	
Irreversible Changes	Open Space, Recreation & Conservation	
Growth Inducing Impact	Assessment	
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